

# BUSINESS WEEK

YEAR  
AGO

WEEK  
AGO

START  
OF WAR  
1939



BUSINESS  
WEEK  
DEX

TWENTY CENTS • PUBLISHED BY THE MCGRAW-HILL

U. S. DEPT. OF COMMERCE  
GENERAL INVESTIGATION  
ANN ARBOR MICH

# BEHIND THIS GIANT RAM-THE

## *Power of Oil!*

**U**NDER sensitive control, the giant ram of this 500-ton hydraulic press moves down, takes hold and gives a mighty shove. A piece of hard metal is drawn into shape.

Back of this big push is the smooth flowing power of oil, pumped under pressure into the space above the piston (shown in bright red). This oil must retain its fluidity and freedom from deposits over long periods and must form strong films to protect vital parts from wear.

For big presses like this, and all other machinery in your plant, Socony-Vacuum has special Gargoyle Oils with the stability, lubricity and correct body for the jobs to be done.

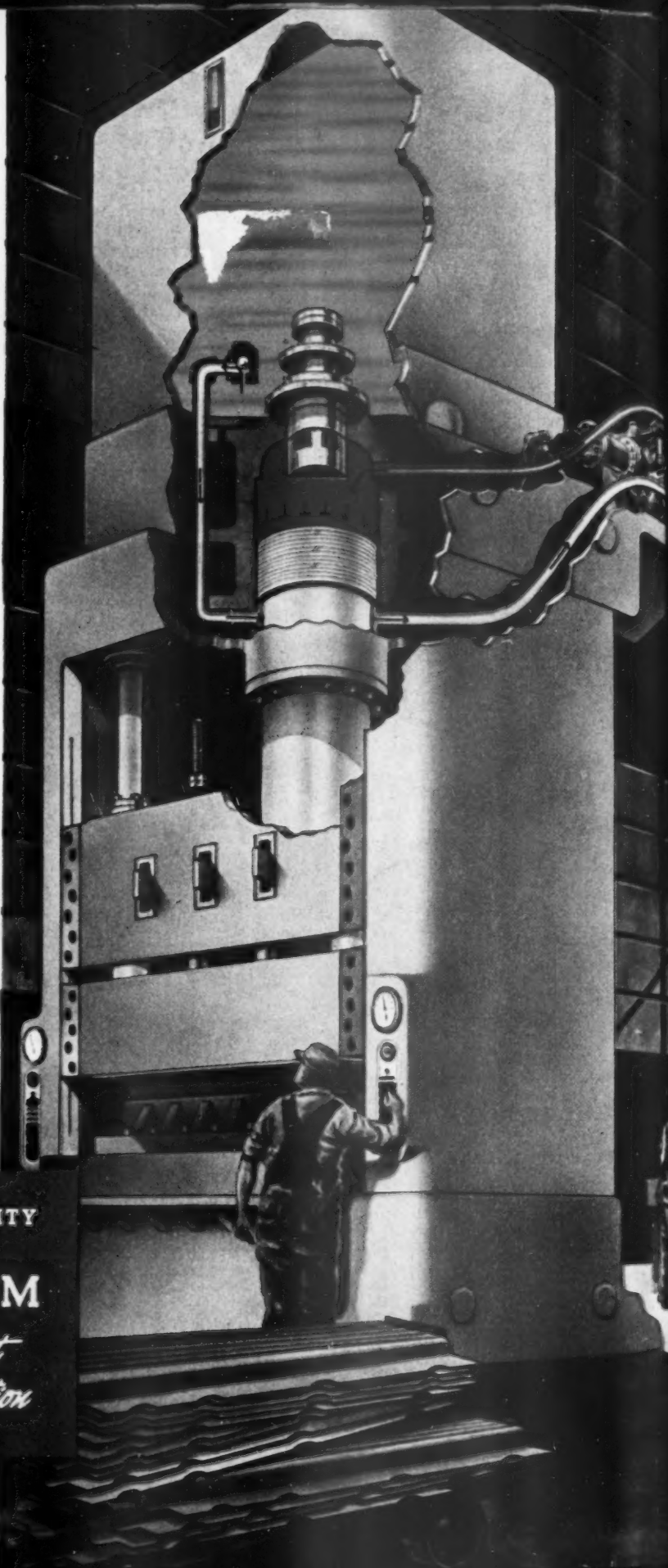
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PRODUCTION, CALL IN  
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*for Correct  
Lubrication*





*In war or peace*  
**B.F. Goodrich**  
**FIRST IN RUBBER**



## Rayon underwear for truck tires

*typical example of B. F. Goodrich development in rubber*

Old truck tires traveling at high speeds under heavy loads have always had a tendency to overheat. They get hotter than boiling water, may reach a temperature of 300°, and sometimes even burst into flame. Yet temperatures over 240° are dangerous, as these tires to bruise easily, often to blow out.

Ordinary tire fabric is woven with threads criss-crossing the cords. Under the threads saw against the cords, the cords rub against each other, causing more heat to be generated.

B. F. Goodrich engineers developed a method for making cord fabric with-

out any cross threads! Each cord as it comes from the creel room shown in the picture is dipped in rubber and then evenly spaced, 34 to the inch, made into a sheet of rubber-covered fabric. Cords just can't touch each other.

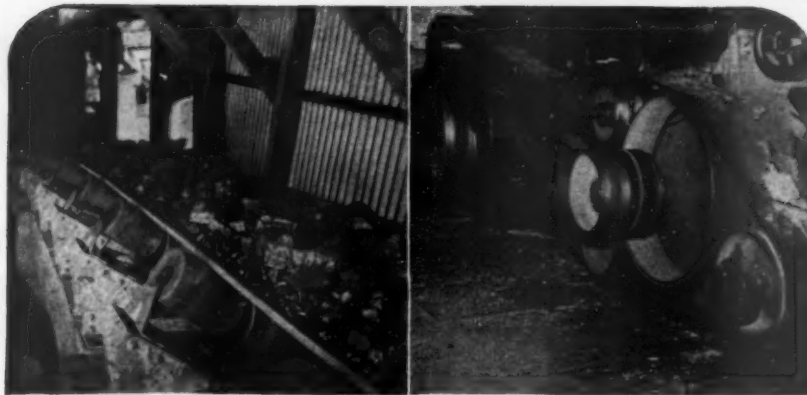
But with synthetic rubber, even this did not solve the overheating problem. Synthetics get hotter than crude rubber. It was known that tires made with rayon cord ran cooler. So B. F. Goodrich men went to work, overcame the problems of controlling moisture content, elasticity and stretch in rayon cord, developed a way to

make rayon cord fabric without any cross threads.

No other tires are made in this way—using rayon cord fabric without cross threads. But all B. F. Goodrich large-size truck tires are made by this new process. They are less susceptible to bruises and blow-outs. They use less rubber but actually last longer.

B. F. Goodrich research like this is constantly improving not only truck tires but tires for passenger cars, airplanes, farm and industrial equipment. The B. F. Goodrich Company, Akron, Ohio.

**B.F. Goodrich**  
**Truck & Bus Tires**



## Reprene Industrial Belts DEFY OIL AND HEAT

**I**MPROVEMENTS, never possible with natural rubber, are now incorporated in Republic industrial belts. Now, these rubber belts are resistant to oil and grease, also resistant to high external and internal temperatures, and will give longer and more economical service—better than before. The Reprene label identifies for you these extra-quality products.

While natural rubber deteriorates from contact with oil and grease, certain synthetic rubbers are highly resistant. From these, Republic technicians have developed scientific compounds that give greater service in power transmission, conveyor and elevator Reprene belts. Consult your Republic Distributor on economical applications of Reprene belts.

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REPUBLIC INDUSTRIAL PRODUCTS  
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LEE DELUXE TIRES AND TUBES  
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## BUSINESS WEEK

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## Carryback Estimates Revised

Businessmen can no longer count on the 40% V-E Day cutback in military expenditures that officials forecast last summer. Military developments have changed the picture since then. Army and Navy procurement officers now are busy re-evaluating their estimates of how much they will need after Germany goes under. WPA isn't yet ready to back away from the 40% prediction. It may never come to. If the picture changes again, there still is a good chance that the overall cut in war production will be 40%, perhaps even more. But many officers now say there is an equally good chance that the cut may be closer to 20% than 40%.

## Production Boost in the Wind

Part of the talk about cutting schedules only a little—if at all—after V-E Day is a natural offshoot of the intensified drive to step up war production in the critical lines. Part of it also has a more solid foundation in the present military situation. The military hasn't notified WPA yet, but a big boost in production schedules for the Pacific war is in the air. Recent operations have been moving up munitions at a terrific rate. During our first two months on Saipan, for instance, we moved in more freight than the port of San Francisco handled the entire year of 1940. Big as the military's supply schedules are, they haven't been big enough to keep this pace indefinitely.

## Head of the Timetable

Japanese advances in China and the failure of the Chinese military machine will have their repercussions on U. S. production schedules. Predictions of a 40% cut after victory in Europe were based on the assumption that fighting in the Pacific would run about a year or 18 months longer and that the Chinese army would do a good part of the work. If this assumption doesn't pan out, the U. S. will have to set up a new and bigger production budget for the Pacific. The island-by-island advance toward Japan is running ahead of its timetable, and this also spells bigger production schedules. Material consumption is stepping up faster than the original plans allowed. Ships and munitions booked for production next spring are needed immediately. WPA hasn't figured out yet just what

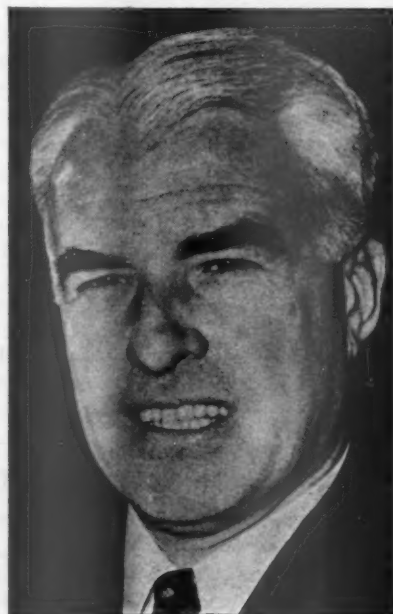
a boost in production goals for the Pacific would do to its plans for relaxing controls after V-E Day. The whole V-E Day plan, still locked at midweek in Chairman J. A. Krug's safe, is based on the idea that after victory in Europe there will be enough materials and facilities to give business its head without endangering war production.

It is rule of thumb that the smaller the military cuts, the smaller the amount of materials that will be freed, and the fewer the controls that can be dropped.

## Stettinius—Goodwill Choice

Chief factor in President Roosevelt's nomination of Edward R. Stettinius, Jr., as Secretary of State to succeed Cordell Hull was his desire to take practical advantage of congressional, Republican, and conservative goodwill generally toward the Dumbarton Oaks proposals built up by the Administration and Hull.

Stettinius' appointment gives a continuity to a policy of international collaboration developed since Hull's visit to Moscow in October, 1943. Stettinius as Under Secretary since September, 1943, is identified with development of that policy. He has conferred often with foreign representatives and has



Forty-four-year-old Edward R. Stettinius, Jr., got the call as Secretary of State because he had no enemies.

made no enemies in the Senate, whose vote will determine this country's post-war role.

## Reorganization Job

Stettinius will be a docile follower of whatever Roosevelt proposes in major policy, but he will try to reorganize the administration of the State Dept. and bring it to a closer understanding of popular sentiment. Until the President put the proposition to him directly on Nov. 27, Stettinius had indicated he would turn down such an appointment because he wanted to return to U. S. Steel as soon as the war would permit.

The overwhelming tactical need for a Secretary of State who would arouse no animosities in the Senate or in strong civilian groups caused Roosevelt to pass over other suggested possibilities like James F. Byrnes, who would have angered the C.I.O. Political Action Committee; John Winant, former Republican, who might lack authority in dealing with recalcitrant Democrats; Sen. Joseph Ball, still at odds with a large segment of the Republican Party because of his campaign revolt; and Vice-President Henry Wallace, who lacks influence at the Capitol.

## Tax Concession Is Likely

Corporations stand a good chance of getting one tax concession from the next Congress if they push for it. The Treasury has revived its plan for permitting corporations to offset against current tax payments their anticipated refunds under the tax law's carryback provisions. This was first presented in the Treasury's suggestions for the 1943 revenue bill but got lost in the shuffle. Now the Treasury is ready to give Congress another sales talk if it can get a hearing.

The plan, as it now stands, would work like this: A corporation that had its war contracts canceled early in 1945 and expected to be eligible for a refund at the end of the year would file an estimate of the anticipated carryback as soon as it could make a guess. Then, it would figure out the probable refund and offset this against payments of the tax on 1944 income (which fall due during 1945). When the final figures for 1945 were in, the corporation would file a complete return and adjust for any differences between it and the estimate.

The big advantage of the plan is that corporations eligible for a refund would



**MORE THAN MACHINES  
WILL BE**

# Unveiled after the war



*When automobile manufacturers take the wraps off the machinery they stored at the beginning of the war, you also will find the petroleum industry unveiling new and better gasoline.*

**THE POST-WAR PURCHASER** will expect a **better** automobile than his present machine. That means more than refinement in body design, new accessories or features. It calls for better engines—engines that will get more work from each gallon of gasoline.

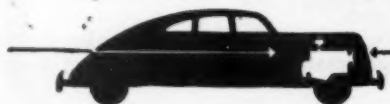
The basis for this fundamental improvement already exists. It lies in the development of automotive engines to take full advantage of the greatly improved gasoline which the petroleum industry will produce. For as war need ends, the high-octane components now being produced by refiners for use in military gasoline will find their way into civilian gasoline.

The opportunity that exists for substantial improvements in engine performance because of better fuels is by no means limited to passenger car engines. There is an equal opportunity in the commercial field as well.

Greater engine efficiency may take the form of increased mileage, better performance or a combination of both. In the long run, the trend will be decided largely by economic factors. But no matter which way the trend goes, the question of "How can we best utilize post-war gasoline?" will likely be both the No. 1 problem and the No. 1 opportunity of the automotive designer.

## **ETHYL CORPORATION**

Chrysler Building, New York City  
Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline.



Wartime progress by America's petroleum industry has paved the way for fundamental progress in post-war automobile engine design.



able to use their tax reserves immediately in order to meet reconversion expenses.

## Textile Pay Demand Heard

The National War Labor Board has started formal consideration of the demands of the C.I.O. Textile Workers Union for a 60¢-an-hour minimum wage in northern and southern cotton mills. Since the board rejected the related demand of the C.I.O. Steelworkers for elimination of geographical wage differentials, it will not wipe out completely the north-south textile differentials, but under the guise of adjusting substandard wages.

Expectation is that the board will end up by raising minimums about an hour on the average, boosting southern minimums from 47¢ (or below) to 55¢, and boosting the northern ones from 52¢ (or more) to the demanded 60¢.

Wages above the 55¢-60¢ level will be raised to preserve bracket differentials, with the increase tapering off as wages go up.

## Study Guaranteed Wage

The demand for a guaranteed annual wage (BW-Nov.11'44,p98) which the C.I.O. unveiled with much fanfare more than a year ago will be turned over to a presidential commission without power to issue any orders on the subject.

This commission, which the National War Labor Board proposed in handing down the steel wage decision (page 16), is expected to make a lengthy study of existing guaranteed annual wage plans and the possibility of their continued development in industry.

The commission's activities will maintain pressure on the steel and automobile industries to adjust their production schedules to stabilize employment as far as possible, even though its eventual recommendations will not carry enough weight to put employment guarantees into labor contracts for some time.

## Death Knell for FCC Hearings

Finis to the two-year congressional investigation of the Federal Communications Commission was written this week when the Administration succeeded in closing the door on the House investigating committee's hearings on the sale, in 1940, of station WMCA,

New York City, by Donald Flamm, veteran showman, to Edward J. Noble, now chairman of the Blue Network and former Under Secretary of Commerce (BW-Aug.7'43,p178).

The next Congress will go to work on overhauling the antiquated radio act of 1927, but with little prospect of more fireworks now that the contentious James Lawrence Fly, who recently resigned as FCC's chairman, is out of the picture.

## War Manpower Needs Recast

Manpower authorities have finally screened war manpower requirements down to 90,000, a figure that they say represents the "supercritical needs" of "top must" programs. Actually 90,000

more nearly represents their target than much higher estimates that have been circulated for weeks. The figure does not include, however, the new demand for more than 60,000 small arms ammunition workers (page 17).

## Fewer Cigarette Cartons

Congressional investigation of the cigarette shortage (page 21) probably will find the cause in overconsumption and lack of cartons. Lack of cartons and shipping space have been hampering distribution to troops overseas.

Americans smoked 172,000,000,000 cigarettes in 1939, 257,000,000,000 in 1943. This year 250,000,000,000 are available, but the demand is for several billions more. Manufacturers just can't

## Retiring Congress Has Short Docket

This Congress will end its working life with the Christmas holidays. In the next two weeks, the only important measures practically certain to pass are:

(1) Extension of the war powers act, which expires Dec. 31, practically intact. If there had been more time, some strings might have been tied to this law. That's why Administration leaders on Capitol Hill held it back.

(2) Restoration of crop insurance, to which there is no partisan opposition.

(3) The \$1,500,000,000 federal-aid road bill, carrying authorizations for a three-year period.

• **Waterways Bill Possible**—The \$1,000,000,000 flood control bill may get through, but has been delayed by the ruckus over creation of a Missouri Valley Authority along Tennessee Valley Authority lines (BW-Nov.18'44,p20), the St. Lawrence project, and government sale of power. In any case, the Missouri and St. Lawrence issues will not be settled by this legislation.

The \$500,000,000 river and harbor development bill possibly may pass, but bitter fights over particular projects are holding it up.

It's a pure gamble whether legislation to hold the social security payroll at 1% will reach final enactment. If passed, President Roosevelt is certain to veto it, and it's doubtful whether the veto could be overridden.

den. In this event, the rate will rise automatically to 2% Jan. 1 unless there's time for a compromise at, say, 1½%.

Repeal of so-called land grant preferential rail freight rates to the government (BW-Mar.25'44,p19) has a fair chance.

• **To Eschew Controversies**—Some New Dealers and others who have predicted that Roosevelt's reelection is the signal for a strong New Deal offensive are looking to the President to smack the incoming Congress with a broad legislative program of social reform measures. But there's no evidence that Roosevelt expects to pull anything new out of the hat.

On the contrary, he is seeking to avoid controversy on domestic issues which would tend to alienate support for his program of U. S. participation in international cooperation.

Only if and when the U. S. economy shows signs of swinging into another depression will Roosevelt act, and even then, unless pressured by a vast army of unemployed, he is not likely to propose more than the resumption of heavy government spending for public works and relief.

• **Merely an Extension**—Expansion of social security, raising the national minimum wage, nationalization of unemployment insurance merely represent an extension of the original New Deal, don't constitute new radical doctrines.



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In the Webster Moderator System, there are just four control elements—an Outdoor Thermostat, a Main Steam Control Valve, a Manual Variator and a Pressure Control Cabinet. These controls are an integral part of the Webster System—assuring the highest expression of comfort and economy in modern steam heating.

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Pioneers of the Vacuum System of Steam Heating  
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**AUTOMATIC**  
**Webster**  
**Steam Heating**

keep pace with this terrific demand. Tobacco production is up 35%, but at present there is only an 18 months' supply of leaf on hand, the House Agriculture Committee was informed.

## OPA Loses Pricing Dispute

War Food Administration has won out over OPA in a dispute over fresh fruit and vegetable pricing. Economic Stabilization Director Fred M. Vinson has ordered OPA to revise its regulation so that wholesalers will add their margins to actual costs instead of to the previous seller's ceiling price, as at present.

OPA still has a trump card in its ability to postpone the day. It took nearly a year to work out the existing ceilings on fresh vegetables. Officials figure that it will take at least six months to revise them in line with Vinson's order.

The new pricing method results from WFA's complaint that wholesalers have forced growers below ceilings on plentiful crops, pocketing the difference between actual costs and legal ceilings. OPA says the new formula will wreck the present basing-point system which results in uniform wholesale prices for large areas of the country. Uniform wholesale prices, in turn, make possible the community pricing program at the retail level—and community pricing is OPA's most successful device for holding the line on food.

## Capital Gains (and Losses)

Washington politicians are much amused by the following notice which the Hotel Roosevelt, New York City, has posted in some of its rooms: "This room has been released recently by the Republican national headquarters. Its condition and appointments are not up to Roosevelt standards, because an acute demand for accommodations has prevented refurbishing."

—Business Week's  
Washington Bureau

## THE COVER

To Chicago air conference photographers and to Britain's fascinated Minister for Civil Aviation, U. S. Assistant Secretary of State Adolf A. Berle seemed to be in a quandary between the pipe in his right hand and the cigarette in his left. The conference itself seemed to be in a quandary between British and American ideas on postwar commercial policy. The fundamental differences revealed at Chicago (page 111) are highly important to business for they will confront all the other international conferences.

## PRECISION PARTS

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Ace offers manufacturers today a complete service for producing small parts assemblies. Here under one roof is modern equipment, the ability to do accurate work involving stamping, machining, heat-treating, or grinding. Send blueprint, sketch, or sample for quotation.

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**CYLINDRICAL GRINDING**—Multiple banks of widely varying internal and external cylindrical grinders are available for outside diameters up to 12" by 24" between centers... and inside diameters as small as 1/16" or as large as 4" by 2 1/4" long.

**THREAD GRINDING**—Our battery of Ex-Cell-O Thread Grinders equips us to give you tolerances of .0001" on all Standard V Threads, Acme and Square Threads, and on single or multiple leads. All sizes up to 5" diameter with threads 8" long, on parts up to 20" between centers.



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# THE OUTLOOK

BUSINESS WEEK  
SEPTEMBER 2, 1944



The Army, pounding the home front on war production programs that need about 300,000 more workers, might look under the bed.

For many months, the Army has been about 300,000 over its personnel goal of 7,700,000. This, officially, is the replacement reserve, the cushion between inductions and the effect of losses and mustering out.

The Army can't let the 300,000 men, or any major group of them, go. But if the pool had been accumulated more gradually, fewer critical areas in the war production effort would have developed.

**This situation, more than any talk of early victory and reconversion, is accountable for the soft spots on the production line.**

Liberal dismissal pay (based on length of service and chargeable to the government in termination of war contracts) could go a long way toward stopping men from leaving war jobs for poorer-paid but surer civilian work.

**If Germany can continue stiff resistance for a period of months, there still are chances of a new draft crisis (BW—Oct. 28 '44, p9).**

Army casualties from the invasion of France to Oct. 28 amounted to 258,679. Of these, 172,000 were wounded and 68,000 have returned to duty. Thus the Army's effective strength has been reduced about 190,000 men in this period, or about 40,000 a month.

Selective Service inducts about 60,000 youths turning 18 years old each month. Though the Navy takes part of these, inductions should pretty well replace battle losses.

However, Army "separations" number about 30,000 a month (and here there is some duplication, for this total includes killed which are allowed for in the foregoing figures on battle casualties).

All in all, there would appear to be little reason for an increased draft, considering that Army personnel is 300,000 over estimated needs. If, however, Army should refuse to let this 300,000 replacement pool shrink as it is drawn upon, draft calls might have to go up.

**Changing nature of military operations brings some bewildering shifts in the requirements of the armed forces.**

This was demonstrated by the whopping increases in the **heavy artillery ammunition** and **big truck** programs early this year. Now it has been emphasized once again in **small arms ammunition** (page 17).

Small ammunition was one of the first munitions programs to feel deep cutbacks. Now 75,000 more workers are needed for stepped-up output.

The same sort of shift might be experienced in the Army's demand for troops. With about 5,000,000 men overseas—and with shipping available to send more abroad rapidly—the generals could conceivably decide that even the present strength of 8,000,000 should be augmented.

**That's why essential industry can't figure its workers draft-proof.**

The easier situation in copper will be at least temporarily reversed by the unexpected increase in needs for small arms ammunition.

Opposition by the armed services to publication of the War Production Board's plan for removal of most controls after V-E Day seems to have stymied the whole business for the moment.

**However, the nonferrous metal people hear that just about all the big-**



# THE OUTLOOK (Continued)

**BUSINESS WEEK**  
**DECEMBER 2, 1944**

**volume items in their field are to be freed except lead.** Retention of the control order on lead would cause considerable surprise. Supplies have occasioned little concern for a long time; in fact, substitution of lead for less plentiful metals in many types of products has been permitted right along.

Nevertheless, it is true that **lead consumption has been high**—about 70,000 tons a month. **This exceeds domestic output**, and the trade believes a stockpile once totaling 270,000 tons is down to about 115,000.

There is this consolation. Retention of controls on lead would mean relatively little because the WPB restrictions are very lenient.

•  
**There is a squeeze in quicksilver.** The price went into a tailspin when the government pulled out its supports last winter (BW—Jan.22'44,p10). Recently, however, there has been a fairly substantial rally.

The price, which dropped from above \$190 a flask to below \$100, has risen to around \$125, and here's the story behind the rise.

Metals Reserve Co. has a stockpile of high-priced quicksilver. It isn't anxious to sell at sacrifice prices. Meanwhile, there has been a quickening demand for mercurials which finds supply scanty.

•  
**This is a good time for management to reappraise collective bargaining—before the time that postwar union contracts have to be written.**

As the name collective bargaining implies, this need not be a one-way affair in which the unions make all the demands and managements simply resist on all counts.

**Crystallize your ideas, determine your bargaining points.**

For example, some businessmen have proposed changes in **incentive-pay systems** to counter employees' demands for higher wages or for freezing wartime base pay.

Others have agreed to keep **maintenance of membership** but only by winning something in exchange.

•  
Incentive-pay plans can be used as a means of cutting costs after V-E Day—pay a little more to get substantially more production. (And who won't need to cut costs during reconversion, what with high wage rates still in force along with price ceilings?)

Unions will call this a speed-up (or worse). Yet government, management, and labor are committed to the principle of full employment.

**Obviously the way to make jobs is to make more goods**, and to make more goods there must be a market created for them, and the surest way to make a market is to reduce the cost to the consumer.

**Thus, in the long run, it is in labor's own interest to permit writing somewhat higher bogeys into incentive-pay arrangements.**

•  
It's difficult for businessmen to decide whether they should take the new predictions of V-E Day cutbacks running to a mere 15% to 25% any more seriously than they did the forecasts which circulated a few weeks ago about a 70% reduction in war orders. Military developments change so quickly that it's hard to pin the estimates down.

**Many think that the earlier WPB figure of a 40% cut after Germany falls (three-quarters of it in the first two to three months) still looks good.** They argue that war output at 60% of its present rate may suffice for Japan.



# FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below) . . . . .	*230.7	†230.4	231.1	236.2	243.3

## PRODUCTION

Steel Ingot Operations (% of capacity).....	96.3	95.4	94.9	97.5	99.5
Production of Automobiles and Trucks.....	18,295	20,930	21,035	18,260	16,775
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$4,425	\$4,263	\$5,785	\$5,227	\$9,592
Electric Power Output (million kilowatt-hours).....	4,369	4,450	4,358	4,292	4,403
Crude Oil (daily average, 1,000 bbls.).....	4,736	4,739	4,741	4,514	4,414
Bituminous Coal (daily average, 1,000 tons).....	2,030	†1,945	1,967	2,050	2,162

## TRADE

Miscellaneous and L.C.I. Carloadings (daily average, 1,000 cars).....	86	†85	88	82	84
All Other Carloadings (daily average, 1,000 cars).....	58	59	63	63	63
Money in Circulation (Wednesday series, millions).....	\$24,881	\$24,717	\$24,216	\$21,911	\$19,726
Department Store Sales (change from same week of preceding year).....	+12%	+9%	+8%	+15%	+22%
Business Failures (Dun & Bradstreet, number).....	17	13	15	33	43

## PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	248.5	†248.3	248.2	250.7	244.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	165.6	166.2	166.3	164.2	160.3
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	221.8	†220.9	224.6	224.2	213.7
†Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
†Scrap Steel Composite (Iron Age, ton).....	\$17.08	\$17.08	\$15.75	\$19.17	\$19.17
†Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
†Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.59	\$1.59	\$1.61	\$1.64	\$1.58
†Sugar (raw, delivered New York, lb.).....	3.75¢	3.75¢	3.75¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	21.40¢	†21.34¢	21.39¢	21.18¢	19.34¢
†Wool Tops (New York, lb.).....	\$1.340	\$1.340	\$1.340	\$1.350	\$1.278
†Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢

## FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.).....	101.6	101.1	101.5	97.4	88.0
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.51%	3.53%	3.54%	3.60%	3.84%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.71%	2.72%	2.74%	2.72%	2.73%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1%	1%	1%	1%	1-1%

## BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks.....	39,169	38,417	37,438	35,969	33,201
Total Loans and Investments, reporting member banks.....	54,222	54,043	54,088	50,240	51,462
Commercial and Agricultural Loans, reporting member banks.....	6,300	6,328	6,183	5,906	6,423
Securities Loans, reporting member banks.....	2,664	2,510	2,474	1,839	2,288
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks..	39,929	39,883	40,092	37,184	37,377
Other Securities Held, reporting member banks.....	2,863	2,877	2,889	2,867	2,818
Excess Reserves, all member banks (Wednesday series).....	1,100	1,100	783	764	1,044
Total Federal Reserve Credit Outstanding (Wednesday series).....	19,341	18,807	17,899	14,525	10,792

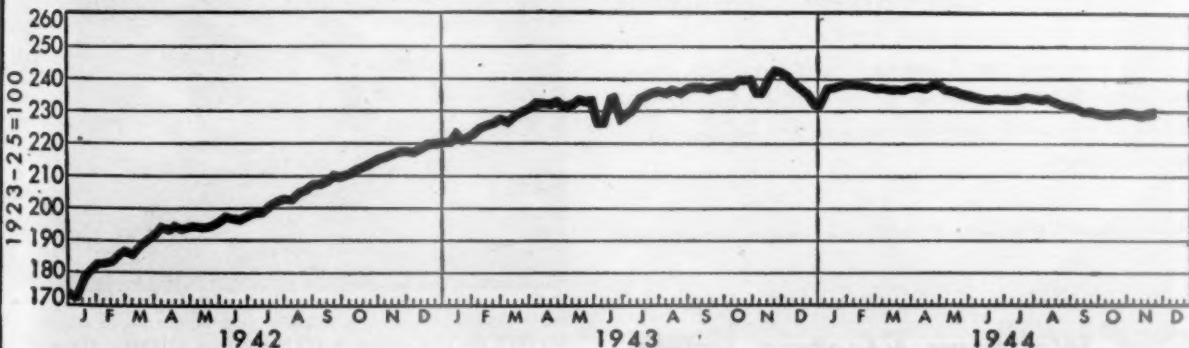
\* Preliminary, week ended November 25th.

† Ceiling fixed by government.

† Revised.

§ Date for "Latest Week" on each series on request.

## BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



*Great Events in the History of...*

## COMMUNICATIONS!



**The Telephone Talks!** "Mr. Watson, come here, I want you!" This sentence, spoken by Alexander Graham Bell in his Boston workshop on March 10, 1876, to summon his assistant, was the first ever transmitted by telephone. This great event led to the founding of the Bell Telephone System—for which Western Electric has been the manufacturer since 1882.

**EVEN BEFORE** the first of these historic events, Western Electric—founded in 1869—was making electrical communications equipment.

The Company's work as maker of Bell Telephone apparatus since 1882 has led to many other sound-transmission products which enrich your life. Radio in all its forms—talking picture equipment—train dispatching equipment—public address systems—hearing aids—all owe much to the pioneering work of Western Electric.

This year—as the Company marks its 75th Anniversary—Western Electric is the nation's largest producer of electronic and communications equipment to speed victory.

*During the 6th War Loan Drive, buy more Bonds than ever!*



**The Telephone Spans the Continent!** On January 25, 1915, Mr. Bell in New York, once more talked to Mr. Watson, this time in San Francisco, on a momentous occasion—the opening of telephone service across America. This was made possible by Western Electric vacuum tube repeaters—first of many millions made for the Bell System.



**Radio Telephone Spans the Atlantic!** Just before dawn on October 21, 1915, the first spoken words crossed the Atlantic—transmitted from Arlington, Va., and received in Paris by Western Electric radio telephone. Out of this pioneering came world-wide telephony—broadcasting—aviation, marine and police radio.

## Surplus Disposal Faces Trouble

President's nominations for new board get cool reception at Capitol Hill, thus complicating a difficult wartime job. Congress won't rush to cooperate by clarifying the complex law.

Less than a week after their nomination, the proposed members of the new Surplus Property Board are having trouble with Congress. This is a bad omen. Taking it in connection with other storm signals, experts fear the whole surplus disposal program may bog down.

**Questions Unanswered**—Selection of the new board hasn't cleared up the questions surrounding the slowly forming plans for disposing of government-owned surpluses. Instead, it has further complicated the situation. As things look now, it will be three or four months, perhaps more, before businessmen will know much more about the details of surplus disposal than they do now.

The two nominations that President Roosevelt sent to the Senate last week—Robert A. Hurley, former governor of Connecticut, and Edward H. Heller, a San Francisco financier who is now an army finance officer—met with a cool reception. The Military Affairs Committee decided to hold hearings on their qualifications, beginning Dec. 1.

**Campaign Material**—Republican congressmen, thrifly laying away campaign material for the 1946 elections, are

using the nominations as a springboard for a general attack on the Administration's handling of surplus disposal.

But entirely apart from partisan Republican reaction, there is dismay that Roosevelt apparently permitted political considerations to influence appointments to two posts of vital importance in shifting industry from wartime to peacetime operations. Hurley is a Democratic national committeeman and a friend of Harry Hopkins since early WPB days. Heller's wife is a Democratic national committeewoman from California, and he is a relative of Treasury Secretary Henry Morgenthau's wife. Heller formerly was a partner in Schwabacher & Co., San Francisco brokerage house, and formerly a director of the Wells Fargo Bank & Union Trust Co.

**Nomination Is Delayed**—Sen. Guy M. Gillette of Iowa is slated for the remaining spot on the three-man board. He is generally acceptable to congressmen, but his nomination has been delayed by the rule that a sitting Senator cannot take an office created by Congress during his term. Gillette, a middle-of-the-road Democrat, was defeated in

the last election. He probably will not take office on the board until Congress turns over next January.

One reason for the congressional rumormongering over the nominations is Hurley's connection with the Narragansett Machine Co., Pawtucket, R. I. Last September, the Military Affairs Committee raked the War Dept. over the coals for developing the company and giving it financial support. At the same time, the committee took a shot at Hurley, a vice-president of the company, commenting that "evidence indicated that Hurley spent as little as one day a week at the plant and had no specific duties," although he drew a \$12,000 a year salary.

**Difficult Decision**—Almost any nominations to the board would have come in for criticism, however. Since Congress passed the law creating the board (BW—Sep. 23 '44, p7), various interests—both inside and outside the Administration—have been jockeying for a place on it. A three-man board isn't big enough to give all the pressure groups a representative. Hence, Roosevelt was forced into a corner where almost any appointments were bound to bring protests.

The Hurley-Heller-Gillette slate is essentially a compromise. When all the dust has settled, Congress probably will confirm it. But that will be the beginning of the board's troubles, not the end.

**Rules Are Complicated**—The first—and in many ways the toughest—job that



Three men facing trouble: white-haired Sen. Guy M. Gillette, Lt. Col. Edward Heller, and Connecticut's former Governor Robert A. Hurley, named to Surplus Property Board. Their confirmation would be just a starter.



the board has to tackle will be working out plans for complying with the instructions the law lays out. The Surplus Property Act sets up an elaborate series of preferences—for veterans, state and local governments, tax supported institutions, small business, former owners of government-held land.

On top of that, it imposes a complicated set of restrictions—for example cotton and woolen goods cannot be sold without the written approval of the War Food Administrator; proposed sales of property worth more than \$1,000,000 must be reported to the Attorney General as much as 90 days in advance.

● **Clarification Needed**—Ever since the law was passed, last September, experts have assumed that sooner or later the new board would have to go to Congress to get these conflicting restrictions clarified and trimmed down. There are something like 200,000 local government agencies, institutions, and the like, all presumably eligible for preference under the law.

After the war, there will be about 11,000,000 veterans. The number of small businesses is limited only by the elastic powers of definition of Maury Maverick, chairman of Smaller War Plants Corp. According to the experts, giving preference to all of these would stalemate surplus disposal operations.

● **Two Strikes Already**—A strong-minded board with prestige in Congress probably would succeed in getting the act amended so that it could put surplus disposal on what it considered a workable basis. The new board, starting on the defensive, has two strikes against it already. Unless the members develop some very positive convictions and argue them convincingly, their chances of

getting the law thoroughly revised are slim.

In any case, it is now too late to make suggestions to this Congress. That means that amendments to the surplus disposal law can't go through until late winter, at the earliest.

● **SWPA Staff Is Reduced**—The new board also can expect trouble as soon as it starts to build up a staff. At present, surplus disposal is being handled by William L. Clayton's Surplus War Property Administration, which was set up under executive order. Clayton's small staff has shrunk almost to the vanishing point since Congress passed the Surplus Property Act. Clayton and most of his remaining top assistants will leave as soon as the board members can take hold.

Meanwhile, surpluses are accumulating steadily. Disposal agencies now have more than \$500,000,000 worth of surplus goods on hand (valued at cost). Owning agencies have something like \$700,000,000 more in the process of screening or held in standby.

● **Big Job Ahead**—And all this is only rehearsal for the big disposal job which will come at the end of the war. Then, the Surplus Property Board will have to supervise disposal of \$5,000,000,000 to \$10,000,000,000 in industrial facilities and perhaps \$15,000,000,000 in commodities of various sorts.

In some lines, surpluses already are big enough to break the market. The Procurement Division of the Treasury, disposal agency for consumer goods, now is wrestling with the problem of surgical goods, some of the items representing six months' to a year's normal production. So far, it has been holding the greater part of them back while it talks things over with the industry.

## Steel's New Pay

Union's need of a symbol of victory may obscure its real attitude toward wage increase until after Dec. 11.

Employers who want to know what the National War Labor Board's momentous decision in the steel wage case of last week end really means are advised to ignore the official explanation which, of necessity, interprets the position of the public members of the board.

● **The Only Issue**—The public members, who for all practical purposes represent the government on NWLB, are pretending to have circumvented the only issue which the steel case presented. That issue was: How much of an increase in income for steelworkers is required in order to assure continuous production of steel?

At no time since Dec. 27, 1943, while the board conducted hearings and deliberated on the case did that issue get clearly formulated. Discussion centered on the equity, efficiency, and economics of the Little Steel formula which was the target of the C.I.O.'s attack. But everyone concerned with the case knew well that the basic question was how little an increase in pay the steelworkers would take without going on strike.

● **"Nothing Is Changed"**—Under the terms of the decision (box) employees will get what amounts to a pay bonus averaging between 6¢ and 8¢ an hour without (as NWLB's public members see it) altering steel's base pay or breaching the Little Steel line.

Thus the board's official explanation of what has happened amounts to saying: "Nothing is changed." And John Stephens, spokesman for the steel industry, quips: "Hidden ball tricks sometimes pile up as big a score as do direct line plunges."

● **In Roosevelt's Lap**—With the granting of concessions NWLB, save for the piece of unfinished business, clears the docket of the steel case. What remains to be done is the forwarding to President Roosevelt of a report on wages and the cost of living. NWLB has declared it has no authority to alter the Little Steel formula, so it is sending relevant documents to the White House to let the President decide whether the formula must be changed.

The question Roosevelt now faces is the same question which was implicit before the board: Are the concessions which have been granted enough to satisfy the steelworkers or will a change

## Little Steel Gets New Pay Rise Devices

After eleven months of wrangling, the National War Labor Board split three ways, has finally issued an award in the now-famous steel wage case. Important far beyond the steel industry because it presages a wide application of the principles which the decision promulgates, the central fact for employers is that the Little Steel formula still governs basic wage rates but that new devices for increasing pay have been sanctioned.

These devices are:

(1) Premium pay of 4¢ an hour for the first night shift and 6¢ an hour for the second night shift.

(2) Elimination of intraplant wage inequalities by bringing lower paid workers doing similar jobs up to

scales of higher paid workers with a 5¢-an-hour limit on upward adjustments.

(3) Liberalized vacation and holiday schedules which, in steel, will provide one week's paid vacation for workers employed for one year and two weeks for those employed five years or more.

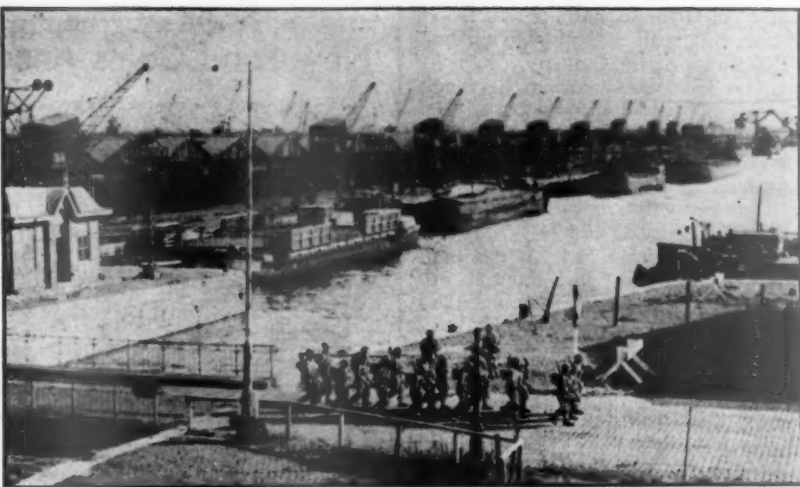
In addition, NWLB has approved the principle of dismissal pay—the details to be bargained out in negotiations between employers and the union; upheld maintenance of membership under the checkoff in steel for another year; and recommended that a presidential commission be created to study the problem of an annual guaranteed wage.



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the formula be necessary to prevent  
Pressure Now—First reactions to  
LB's award may prove misleading.  
Philip Murray, president of C.I.O.'s  
Steelworkers, hailed the decision  
great victory, and the impression  
that the union had been satis-  
But, until Dec. 11—under the 15-  
escape clause which gives union  
members the right to resign from the  
O. before having to maintain their  
membership for another year—Murray's  
members will be busy holding mem-  
bers in the organization, and the union  
is the symbol of a great victory to  
it, to even if its officials think the  
story is not enough. Consequently,  
determinedly the C.I.O. will press  
sevelt to break the formula will not  
revealed until after Dec. 11.

Who Pays the Bill?—Meanwhile the  
industry, estimating that the award will  
cost about \$74,000,000 a year to existing  
workers, is demanding price relief from  
the government.  
Best guesses are that only high-cost,  
original firms will get much help from  
the Bowles agency. For the most part  
the higher wage bill will be borne by  
the government and taxes.



## PORT OF DELIVERY

Key port for final operations against Germany undoubtedly is Antwerp (above), captured intact by British forces. This week Prime Minister Churchill reported that the harbor, clear of mines, is receiving great convoys—bringing an endless mass of ma-

terial necessary to guarantee the success of the Allied drive on the western front. Just how much is arriving is indicated by the report that two tons of ammunition a minute are heading Naziward, plus the generals' appeal to American labor to stick by war jobs, some in reopened plants, to bolster disappearing stockpiles.

## Boost for Bonuses

Plea for more small-arms ammunition revives proposal for dismissal bonuses as a means of keeping war workers on job.

announcement that production of small-arms ammunition must be doubled in the next few months to safeguard Gen. Dwight D. Eisenhower's strategic plans is being used by J. A. Krug, chairman of the War Production Board, to revive the proposal for payment of dismissal bonuses as a means of keeping war workers on the job as long as necessary.

Idea Was Dropped—The dismissal bonus idea was advanced originally by the War Relocation Authority and accepted enthusiastically by Donald Nelson, former War Relocation Authority chairman, to stem the drift of workers from war work. Nelson finally cooled to the idea, however, when confronted with practical difficulties in paying it fairly.

War Mobilization Director James F. Duggan officially interred the proposal last month, prior to the elections, he indorsed a general unemployment compensation plan for released war workers. Congress, however, rejected the unemployment compensation scheme, and keeping war workers on the job seems destined to remain a problem.

• Decision for Congress—A further boost to the dismissal wage proposal has been given by the National War Labor Board's indorsement in principle of dismissal wage payments to steelworkers fired when a plant closes down permanently (page 16).

Krug's plan would require congressional approval since the government would underwrite the additional costs.

The plan would credit to the account of each worker a certain percentage of his monthly wage for each month that he remained on the job. The worker would receive the amount accumulated only if he stayed until he was officially let go.

• More Workers Needed—In advocating the plan, Krug did not commit himself on whether a dismissal wage should be paid to all war workers, or only to those who are engaged on critical programs.

The proposed doubling of small-arms ammunition production will require intensive recruitment of 77,000 workers in eleven or more cities, and probably will put the lid on spot authorization reconversion in those cities during recruiting drives.

If this policy is followed every time the armed services call for additional production, the spot authorization program may be badly crippled. This possibility is used as an additional argument for adoption of dismissal wages. If the war worker turnover rate is cut

down by dismissal wages, the most important objection to authorizing reconversions—the diversion of manpower to civilian production—would be removed.

• Figures Conflict—The ammunition production increase follows the pattern of recent increases in heavy ammunition and bomb production and grew out of the heavy expenditures on the western front.

Production of small-arms ammunition had been sharply curtailed about a year ago, and some plants were put in standby condition. A few months ago, some WPB officials presented figures to show that the nation had accumulated a five-year reserve supply of small arms ammunition.

Krug stated last week that present reserves will be exhausted in a few months, so rapidly have present supplies been consumed.

## ANTICLIMAX FOR PETRILLO

A double measure of gloom shrouds the delight with which James C. Petrillo greeted the victory of his American Federation of Musicians over the recording companies (BW—Nov. 18'44, p108).

For now the tax experts have an eye on the \$4,000,000 a year he expects to amass from the flow of pennies which the companies will pay the union as royalty on each recording that is made. Unions are exempt from income taxes

because of their nonprofit structure, but since the royalties amount to a share in the profits of the industry, congressional tax men are surveying the fund in a new light.

While Petrillo was digesting that possibility, the National Labor Relations Board cut short his jurisdictional grab for radio transcription turntable operators (BW-Mar.25'44,p94)—the so-called platter turners. A.F.M. has the platter turners at the Chicago outlets of the National Broadcasting Co. and the Blue Network, sought to extend its control through both chains.

But the labor board, finding that "neither technical nor musical skill" is required for playing a recording, decreed that the status quo prevail. This means that Petrillo will keep his Chicago platter turners, but elsewhere jurisdiction will remain with the unaffiliated National Assn. of Broadcast Engineers & Technicians.

## WFA Plays Safe

**Food agency sets acreage goals as high as for 1944, but it counts on weather to cut yield; alibis are ready, if needed.**

One foot on first base. That's the way War Food Administration is playing 1945 farm production.

The agency, which is charged with procuring the food to win the war, has set the acreage goals for 1945 a shade higher than those which, in 1944, produced the greatest quantity of food in the country's history. Meanwhile, most of the bigwigs are talking about what those acres should produce with average rather than bumper crop weather.

• **The Gamble WFA Takes**—If next year's weather turns out to be average, their predictions will look good. Only catch would be if food failed to meet home and foreign relief needs, and even then WFA can say: "We didn't dare increase acreages; just think of the surpluses we might have had if there had been another big crop."

On the other hand, if 1945 weather is good and there is another bumper crop, surpluses can be blamed on the weather. Then WFA will say: "We didn't dare cut acreages. We never would have been forgiven if we had wound up with shortages. If the weather is too bountiful, we can't be blamed."

• **The Demand Factors**—Most of the experts figure that output probably will drop 5% to 10% from the 1944 level even though acreage goals are up about 1% over-all—purely and simply a matter of weather. They figure such a de-

## New Food Goals Announced by WFA

Washington's experts figure the total amount of food produced in 1945 will be down as much as 15% even though goals for acreages to be planted are little changed from 1944

levels. The trick is simple: They count on the law of averages to bring normal instead of bumper crop weather, hence lower yields than in lush years such as 1943 and 1944.

Commodity	1945 Goal	1944 Goal	1944 Actual	1943 Actual	1935-39 Average
<b>Major crops (thousands of planted acres)</b>					
Wheat .....	67,640	67,050	66,705	55,109	73,235
Cotton .....	20,472	22,277	20,472	21,942	28,496
Corn .....	99,606	100,253	99,606	97,136	97,055
Oats .....	44,023	39,558	44,023	42,858	40,586
Barley .....	14,483	17,372	14,483	17,329	13,364
Grain sorghums (except sirup) ..	16,740	16,740	17,752	17,291	15,029
Tame hay .....	62,427 <sup>1</sup>	62,838 <sup>1</sup>	60,427 <sup>1</sup>	61,016 <sup>1</sup>	55,770 <sup>1</sup>
Rye .....	2,515 <sup>1</sup>	2,408 <sup>1</sup>	2,325 <sup>1</sup>	2,777 <sup>1</sup>	3,699 <sup>1</sup>
Soybeans (harvested for beans) ..	10,688	13,654	10,688	10,820	3,042
Flaxseed .....	5,000	5,898	3,285	6,320	1,938
Peanuts .....	4,000	6,158	4,169	5,082	2,173
Rice .....	1,400	1,525	1,490	1,531	1,007
Potatoes, Irish .....	3,100	3,519	3,084	3,430	3,123
Potatoes, sweet .....	829	1,056	829	898	804
Sugar beets .....	951	951	646	617	892
Tobacco .....	1,747 <sup>1</sup>	1,756 <sup>2</sup>	1,686 <sup>1</sup>	1,462 <sup>1</sup>	1,544 <sup>1</sup>
<b>Vegetables (thousands of planted acres)</b>					
Commercial truck .....	1,683	1,688	1,852	1,524	1,745
For processing .....	2,010	2,210	2,086	2,094	1,383
For drying:					
Beans .....	2,340	3,048	2,340	2,674	1,917
Peas .....	457	895	746	832	281
<b>Livestock and livestock products</b>					
Milk prod. on farms (million lb.) .....	120,000	121,237	118,198	118,140	103,624
Egg prod. on farms (million doz.) .....	3,920	4,597	4,676	4,516	3,032
Chickens raised (million fowl) ..	700	893	746	926	664
Broilers, commercial (million fowl) .....	213	209	213	249	70
Turkeys raised (million fowl) ..	36	32	36	33	27
Hogs (million head) .....	90	105	88	122	69

<sup>1</sup> Harvested.

<sup>2</sup> Planted.

cine will be all to the good, because it is estimated that military and lend-lease needs next year may drop between 25% and 40%. Moreover, civilian buying might be curtailed a bit during industrial reconversion.

The 1945 planting program calls for 363,718,000 acres, 4,000,000 more than this year. The increases are principally in wheat, hay, sugar beets, and flax. Corn, oats, and barley would be about the same, grain sorghums and some vegetables sharply reduced.

• **The Matter of Meat**—With livestock, the situation is a bit more literal. There isn't any weather gamble, so the cut-backs have to be called right out loud.

Farmers jumped the gun in the case of hogs. They knew it was going to be virtually impossible to buy corn in 1944, so they grew 25% fewer animals. There will be no further feed problem, due to this year's record corn crop, but WFA figures a 1945 hog

slaughter about the same size will be fine.

• **Killing Off Cattle**—With beef, present fairly large slaughter runs are being maintained at a net reduction in herds. WFA Food wants to see the reduction go still further next year so that about 35,000,000 animals will grace dinner tables (some 34,000,000 estimated for 1944). The milk goal is even higher than 1944 production, and no cuts in dairy herds are desirable until near the year's end.

We have been killing young ewes for two seasons now, instead of holding them over for breeding, and the sheep population is believed down to a point where it will fit peacetime demand. WFA wants little change.

• **Chickens in Every Pot**—The greatest slash called for by WFA is in chickens and eggs. The goal is 45,000,000 fewer chickens raised, 15% fewer eggs laid, and a cut in the number of hens and pullets at year-end to 420,000,000.

(down from an estimated 515,000,000 at the end of 1944).

Here's a picture of the livestock numbers WFA would like to see on farms at the end of next year compared with the actual populations at the end of 1943 (in thousands, 000 omitted):

	1945*	1944*	1943
Hogs .....	62,700	61,800	83,756
Cattle† .....	71,100	79,800	82,192
Hens and pullets ....	420,000	515,000	515,000
Sheep and lambs .....	50,000	50,000	51,718

\* Figures for 1944 are indicated numbers judged by present trends, for 1945 are estimates of desirable numbers.

† Reduction in beef cattle would be to 36,900,000 at the end of 1945 compared with an estimated 39,200,000 at the end of 1944 and 41,200,000 in 1943.

• **What Weather Can Do**—If the law of averages catches up with the farmer next year and weather is only normal, the largest yield reductions would be in wheat, cotton, and corn. While acreages will not be changed materially from 1944 plantings, average weather would cut the wheat crop to 833,600,000 bu. from 1,108,881,000, cotton to 10,200,000 bales from 12,520,000, and corn to 3,100,000,000 bu. from 3,258,378,000.

Wheat acreage, set at 68,640,000 last summer to encourage winter wheat planting, now has been cut back to 67,640,000 acres. This is because of the record corn crop as well as the bumper wheat harvest; with enough corn to feed livestock in 1945, there will be little need to feed wheat.

A moderate reduction in the acreage of vegetables to be marketed fresh, along with normal weather, might result in as much as a 15% cut in yield. In the case of Irish potatoes, WFA would like to see a moderate rise from a 1944 harvest that was only moderately above average, but a 15% reduction in sweet potatoes is in order.

• **For Soil Improvement**—Half of the 4,000,000-acre increase in the over-all acreage goal is allotted to hay. War Food wants a yield 3,000,000 tons above the 84,000,000 produced in 1944, thereby boosting the roughage for livestock and permitting of a larger acreage to be planted to soil-protecting sod crops rather than feed such as grain.

The farmer, looking over the goals, has War Food Administration's promise that he will have more machinery than in 1944, adequate supplies of fertilizer, insecticides and fungicides, and few if any marketing bottlenecks. However, he probably won't have any more hired hands than this year, and farm cash income is likely to drop by 5% and perhaps more. Prices will be lower if we have good crops; ceilings will prevent their being much higher if the harvest should happen to be short.

## A Copper Cartel?

Discussions leading to an intergovernmental accord are well under way; pacts in other raw materials also likely.

Cartel talk once again fills the air. It will be no surprise, therefore, if leading copper producing nations get together soon for discussion of possible steps.

• **Talks Are Well Along**—International action on copper (along with two to three dozen other raw materials, notably wheat, cotton, rubber, and tin) has been brewing for many months. Conversations between London, Washington, and Ottawa have been a matter of almost daily occurrence this year.

The talks so far have not been at the "cabinet" level, although the State Dept. in this country has been actively interested throughout. Most of the discussions have been at what is generally described at the "bureau" or "technical" level.

• **Government Control Indicated**—Regardless of how unofficial the negotiations have seemed, all of them have been under the sponsorship of the interested governments. That's the big difference between the cartels that are being talked of these days and those of the past. If it is decided to form any, governments will run them—and

the odds in trade circles are high that some will be formed.

Planners, in fact, shy away from use of the word cartel. This term, they say, is associated with private controls to restrict production, regulate distribution, and maintain high prices. Advocates of intergovernmental action want everything run in the public interest—production large enough and prices low enough to stimulate consumption while, at the same time, rewarding producers.

• **By Any Other Name** . . . —Such cooperative action, sponsors insist, should be tagged as an international convention or accord, as distinct from a cartel.

In view of declining war demand for copper, Washington expects efforts shortly to conclude an "accord." Not too much difficulty is anticipated in winning agreement from the interested parties because many of the trails are blazed; production of copper outside the United States was cartelized before the war and the domestic market was isolated behind the walls of the tariff barrier.

• **U. S. Leads Producers**—Major copper producers in order of 1943 war-swollen magnitude are the United States with 1,114,149 tons; Chile with 548,000; Africa with 470,000 (Rhodesia and Belgian Congo must be lumped for want of official figures in wartime); and Canada with 289,491.

There would be relatively few voices in a conference representing these producing areas: Belgium for the Congo,



### EVER CLOSER

On Saipan, bulldozers and other types of earthmovers level the island's coral contours into one of the world's greatest military emergency airports—an apiary for Tokyo-bound B-29

squadrons. Now in position to pound Nippon's vital industries systematically, the U. S. military command's next step will be establishment of similar airports in the Philippines to increase pressure from the air—aerial curtain-raiser of eventual invasion.



## Copper: Who Produces It and Who Uses It

Governments of the copper producing countries and the companies that do the actual producing are studying the prewar market carefully, to determine the postwar outlook.

Here are figures covering output and use in the years immediately preceding hostilities in Europe (figures in short tons) for 1937, a good year, and 1938, a poor one:

	Consumption		Mine Production	
	1937	1938	1937	1938
U. S. ....	878,186	521,675	834,835	556,673
Canada .....	61,508	52,207	262,432	290,200
Other North American .....	.....	.....	72,503	66,462
Chile .....	.....	.....	455,562	387,409
Other American .....	9,370	12,125	43,430	44,546
<b>N. &amp; S. America</b> .....	<b>949,064</b>	<b>586,007</b>	<b>1,668,762</b>	<b>1,345,290</b>
Great Britain .....	334,652	285,606	.....*	.....*
Germany .....	251,655	373,680	.....*	.....*
France .....	132,056	120,371	.....*	.....*
Russia .....	173,061	181,880	101,963*	108,000*
Other Europe .....	327,501	361,445	.....*	.....*
<b>Europe</b> .....	<b>1,218,925</b>	<b>1,322,982</b>	<b>262,679</b>	<b>280,562</b>
Japan .....	201,721	221,562	83,665	84,900
Other Asia .....	18,188	18,739	45,259	59,048
<b>Asia</b> .....	<b>219,909</b>	<b>240,301</b>	<b>128,924</b>	<b>143,948</b>
Belgian Congo .....	.....	.....	165,993	136,662
Rhodesia .....	.....	.....	234,405	237,362
Other Africa .....	.....	.....	15,930	21,313
<b>Africa</b> .....	<b>4,409</b>	<b>5,510</b>	<b>416,328</b>	<b>395,337</b>
<b>All Other</b> .....	<b>15,432</b>	<b>18,960</b>	<b>22,000</b>	<b>21,900</b>
<b>Total World</b> .....	<b>2,407,739</b>	<b>2,173,760</b>	<b>2,498,693</b>	<b>2,187,037</b>

\* Production of European countries other than Russia is so small as to be negligible. Largest single factor aside from Russia is Yugoslavia with less than 50,000 tons annual output on the average.

Britain for Rhodesia, Canada for itself, and the United States for itself and Chile. (All but a minor portion of Chile's copper is U. S.-owned.)

• **Axis a Question Mark**—Producing countries are worried not only by the prospect of a top-heavy supply situation after the war, but also by the problem of what will have happened to markets. Germany had risen to second place as a consumer by 1938, and Japan was a good fifth (box above). The trade is in the dark as to how much use the aggressor nations will be permitted to make of their metalworking industries when the peace treaties are signed.

There is also, in both Washington and London, almost as much interest in the political aspect of copper as in the economic. Britain is watchdog over Empire production, the United States over good Latin-American neighbors such as Chile, Mexico, and Peru. Moreover nobody has much doubt that a prolonged copper depression in Chile would result in nationalization of the mines after the fashion of Mexico's treatment of foreign oil interests.

## Tax Detour Lost

Supreme Court decides Oklahomans not entitled to split taxable income under optional community property law.

Married couples paying big income taxes in other states have long looked enviously at the status of those in the so-called "community property" states—Texas, California, New Mexico, Louisiana, Nevada, Washington, Idaho, and Arizona.

• **Co-owners by Law**—In those eight states, under laws effective long before the U.S. income tax law was enacted in 1916, couples "as an incident to marriage" became co-owners of their communal property, and divided the income tax liability equally.

The U.S. Supreme Court decided that this equal division applied for purposes of federal income tax, and therefore millions of dollars are saved an-

nually by married taxpayers in the eight states, each spouse paying a separate federal tax on one-half the total income from communal property. This privilege is in addition to the nationwide privilege of married couples to pay separate income taxes on income from separate property or from separate jobs.

• **Choice Permitted**—In 1939 Oklahoma, which was losing many millionaire couples to neighboring communal property states, by statute gave married couples the privilege of entering a community property contract, and dividing income equally for tax purposes. In 1943 Oregon followed suit, making ten states conferring or trying to confer community property rights.

The Oklahoma statute was upheld by the Tenth U.S. Circuit Court of Appeals (BW—Dec. 11'43, p. 32), thereby seeming to open a way for all states to bring relief to higher bracket married taxpayers (and a simultaneous loss of many millions of dollars yearly to the U.S. Treasury) by permitting choice of a community property status.

• **Exemption Denied**—Last week the U.S. Supreme Court shut that door (and incidentally rendered thousands of Oklahoma couples subject to collection of heavy back taxes, plus 6% interest) by ruling, in effect, that the Oklahoma law does not give community property exemption from federal taxation as do those of the eight original community property states, because the agreement it creates is one of choice, not one which is automatically entered into for all purposes at marriage (BW—Nov. 25'44, p. 7).

The decision was 7 to 2. Justices William O. Douglas and Hugo L. Black, dissenting, retorted that marriage is a matter of choice too, and that taxpayers of all states should be treated alike.

• **May Try Again**—The decision leaves open the question whether the court would uphold a division of income for federal purposes, under a new community law in Oklahoma or any other state, if such a law should make the community-property status mandatory for all married couples for all purposes.

Some state, possibly Oklahoma, may make the test. The Oklahoma legislature meets in January, and it is almost certain that a bill will be introduced to correct the Oklahoma law so that it conforms with the original community property status.

## MAGNESIUM OUTPUT CUT

Almost complete cessation of magnesium production in government-owned plants has been ordered by WPB in the wake of the recent shutdown of Nevada's huge Basic Magnesium, Inc. (BW—Nov. 25'44, p. 21).

Two more plants—Dow Magnesium



Co. of Velasco, Tex., and Electro Metallurgical Co. of Spokane, Wash.—have been ordered to close, and output of Diamond Magnesium Co.'s Painesville (Ohio) plant was sharply curtailed.

The continued cutbacks are due, the board says, to the decline in requirements (BW—Sep. 9'44, p38), coupled with a stockpile that now amounts to twice the required safety reserve.

## Roll Your Own

**Scarcity of tailor-made cigarettes spurs sale of gadget for rolling 'em at home. Dealers resort to informal rationing.**

Sidelight on the cigarette shortage: Brown & Williamson Tobacco Co. reports that its sales of the roll-your-own machine, a depression-born gadget, have soared from an average of 15,000 a month to 50,000 in October and possibly 100,000 in November.

● **Probe Is Weighed**—Disappearance of the cigarette from the retail market (BW—Oct. 14'44, p19) is arousing the concern of many official agencies, but none seems able to accomplish the one thing smokers most desire—an end to the shortage. The Mead committee of the Senate (formerly the Truman committee) is looking over the situation to determine whether a full-dress investigation is warranted.

OPA brushed off suggestions that cigarettes be added to the rationing list, for the agency sees in rationing an enforcement headache of monstrous proportions; and there is little reason to believe that it would afford relief in effective measure.

● **Informal Rationing**—In scattered sections of the country, dealers have taken rationing matters into their own hands. A Detroit drugstore owner issued registered ration cards to his customers, and the cards are punched at each purchase. If the device is not completely effective, it does ward off repeaters.

● **Smokes for Soldiers**—But even though cigarettes are scarce, the civilian smoker can scrounge around and eventually find a package of some brand. His brother in arms is less fortunate. Black market operations in France grew to such proportions that Gen. Eisenhower last week ordered military police to crack down. A standard price there is \$2.75 a pack, and quotations run as high as \$4.

Post exchanges henceforth are to distribute five packs a week to combat troops, two packs a week to those in rear areas. Troops living on C or K rations are issued four cigarettes at each meal.

## Jet Helicopter

**Georgia Tech model, based on new principle, rises in test flight. Lack of torque reaction is achieved in experiments.**

Flight history appeared in the making this week as a jet-propelled helicopter left the floor and soared several feet into the air at the Daniel Guggenheim School of Aeronautics at the Georgia School of Technology in Atlanta.

● **Only One Blade**—The helicopter, which has only one counterbalanced blade in its rotor, is a small-scale model of a full-size machine on which Tech researchers have been experimenting for nine years in efforts to perfect a safe flying craft that would be simple to operate, easy to start.

The rotor operates on a previously unexplored principle—by means of a jet of air discharged at the tip of the blade to drive it around after the manner of a revolving lawn sprinkler. Of major importance is the fact that there is no torque reaction to overcome because there is no mechanical connection between the rotor blade and the fuselage.

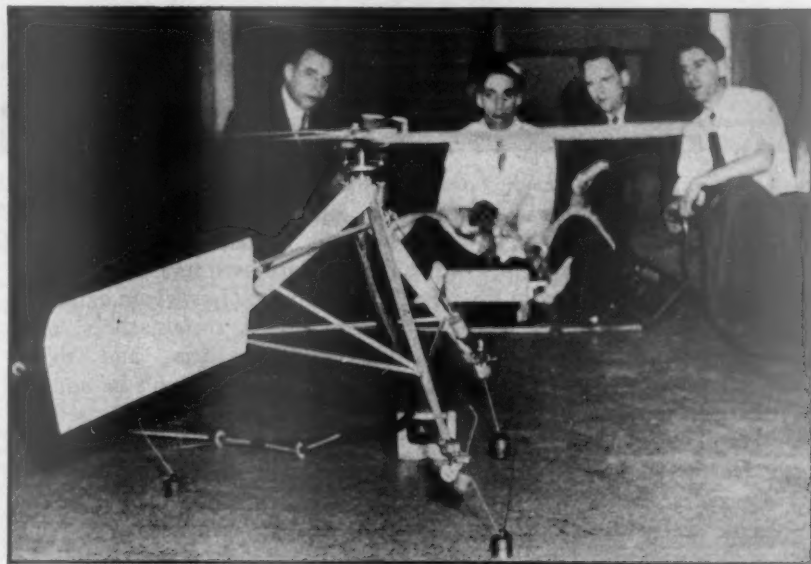
Making final adjustments on a simple working model of the jet-propelled helicopter's novel rotor (right) is Walter Castle, state experimental engineer at the Georgia School of Technology. Powered by air hose, the single-bladed vane lifts its tripod stand a few inches from the floor (below)—as far as weights will allow.

Torque is the force that tends to twist a machine in the opposite direction when power is applied to the ordinary propeller.

● **Shaped Like Plane Wing**—In the forthcoming full-scale helicopter the air for the jet will be drawn through the nose of the ship by a high-speed, engine-driven axial blower, forced through the rotor hub, into the hollow blade, and out through a vent in its end.

The air forced from the vent drives the rotor around. The single blade is shaped like an airplane wing and is so mounted on a swivel that it can be tilted appropriately to pull the machine straight ahead through the air, backward, upward, downward, sidewise, or to hold it stationary in the air.

● **Greater Efficiency Needed**—Dr. Gerald A. Rosselot, director of the experiment station, and Prof. Donnell W.



Dutton, director of the aeronautics schools, are confident that Tech's full-size helicopter—or one of this type—can lift itself from the ground. Chief problem now is to improve efficiency of the drive so that it can compete with an entirely mechanical drive.

## Patents Upset

**Wisconsin foundation is loser again in court row over its control of vitamin D production through food irradiation.**

The U. S. Circuit Court of Appeals at San Francisco has made up its mind, for the second time, that the three lucrative vitamin D patents held by the Wisconsin Alumni Research Foundation are invalid.

Since 1941 there has been a changing of legal minds, back and forth, on whether the food irradiation patents obtained originally by Dr. Harry Steenbock of the University of Wisconsin faculty were valid (BW—Sep.16'44,p83).

• **Genesis of Dispute**—The trouble began three years ago when the Wisconsin

Alumni Research Foundation sued Vitamin Technologists, Inc., in Los Angeles, charging infringement of patent. A lower court held the patents valid and issued an injunction against Vitamin Technologists.

The Los Angeles firm appealed the decision. The circuit court then held that ultraviolet irradiation is a "process of nature" (BW—Jul.17'43,p57) and dissolved the injunction.

• **Opinion Withdrawn**—But the foundation was not easily convinced. It filed petition for a rehearing before the same federal jurists, and before it came into court these same judges suddenly, in September of this year, withdrew their previous opinion. In effect, the patents were held valid.

Last week this same appellate court, with the same suddenness, ruled that the patents were invalid. Vitamin Technologists, Inc., was winner again.

• **"Public Offense"**—In 34 pages the jurists described the patents, which have netted the university foundation more than \$7,500,000, as a "profit-controlled monopoly barrier."

Judge William Denman, who wrote the opinion, said: "The evidence and appellee's brief are replete with well-verified statements of the great boon to

humanity of Dr. Steenbock's scientific discoveries for the prevention and cure of rickets. The truth of such statements makes stronger the contention that it is a public offense to withhold such processes from any of the principal foods of the rachitic poor."

• **Old Principle**—This was not the sole ground for invalidating the patents. The court reiterated its previous argument—that the principle of improving certain food substances by exposing them to ultraviolet rays, from sun or lamp, was not a new one.

The foundation is expected to take its case to the U. S. Supreme Court.

## Deposits Illegal

**Security demanded by Detroit landlords as indemnity against unusual wear and tear ruled ceiling evasions.**

Security deposits demanded from war workers by some owners of priority-built homes offered for rental in the Detroit area (BW—Nov.4'44,p42) have been declared illegal by a Michigan circuit court.

• **Racket Feared**—The deposits, ranging up to as much as \$500, were demanded by landlords as a prerequisite to rental, in some cases because landlords, who were worried about the quality of tenants, feared that rent ceilings were not high enough to compensate for above-average wear and tear on the new homes.

These landlords required the deposit with the express understanding that the cost of repairs and replacements required by negligence of the tenant would be deducted from the deposit when the tenant vacated. However, it was argued that some landlords on one pretext or another might retain the deposit when the tenant moved out, thus evading rent ceilings. It is estimated that \$500,000 of tenant money is on deposit in Detroit alone.

• **Appeal Probable**—The decision was returned in an action brought by Miller Homes, Inc., one of Detroit's largest priority-home builders. The court ruled that a tenant need not pay his October, 1944, rent, but could apply a \$60 deposit against it, and urged other depositor-renters to take similar action rather than to file recovery suits.

Miller Homes did not react at once to the ruling, but another plaintiff in an identical case did. Sanford Adler, suing a tenant for nonpayment of October rent, said he would go to a higher court if the circuit court returned a similar ruling in his case.



## INIMITABLE AMOSKEAG

To Manchester, N. H., last week went Maury Maverick, Smaller War Plants chief, and his aides to study the resurrected Amoskeag mills in their search for a program to aid small business during reconversion. Before the Maverick group arrived, however, the manager of the Amoskeag enterprise predicted the visit would be fruitless for the mill's resurrection is a phenomenon impossible to duplicate. Rescued by a local syndicate (BW—

Sep.2'39,p21) when Amoskeag Mfg. Co., once the greatest cotton textile producer, closed, the 50-odd buildings (above) have been revamped and subdivided for 94 firms whose output includes textiles, metals, shoes, soup, electrical appliances, and rubber goods. The rescue can't be imitated because the old buildings were more readily tailored to individual needs than will be one-story plants, and were bought for a price allowing cheap rents and sales which the U. S. can't duplicate without great loss.

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## Denver's Rebound

Critical need for artillery ammunition revives a moribund ordnance plant, takes sting out of early munitions cutback.

Denver has had its ups and downs in war production.

The curve was up in 1941 when Remington Arms Co. opened its government-owned .30-caliber ammunition plant, which subsequently employed 20,000 persons. About a year ago the curve turned downward as one of the first cutbacks in munitions contracts hit the Remington plant; employment sank to 3,200 (BW—Jun. 3'44, p101), and since last summer has been virtually nonexistent.

• **Coming Back**—Now the curve is up again, and there is a prospect that the plant will employ as many as 10,500 before the winter is out, for now it houses two critical artillery ammunition production programs. The recent spurt in demand for small-arms ammunition (page 17) came too late for Denver.

In one portion of the plant, Henry J. Kaiser Industries is applying the finishing touches to 155-mm. and 8-in. shells. In another, shell fuses and boosters are being turned out by Kaiser and Remington Arms.

• **A Finishing Operation**—Kaiser brings the rough-finished shells from its steel mills at Fontana, Calif., finishes them at Denver, then ships them elsewhere to be loaded.

Kaiser expects to spend about \$7,300,000 to remodel the ordnance plant and install machinery for fuses and boosters. Remington has a separate contract for a different type of fuse.

Remington's employees so far are mostly trainees. Eventually they will number about 5,000. Kaiser, with about 900 on the payroll, has just gone into three-shift operations, will employ about 5,500 at the peak.

### ACID ORDER PINCHES AAA

A new scheme of allocating sulphuric acid according to end use, evolved by WPB's Chemical Bureau, became effective Dec. 1. The same principle is likely to be extended later to ammonia. Both are essential fertilizer materials.

Sulphuric acid has been allocated heretofore only on the Pacific Coast but the shortage now is most acute on the East Coast. Relief is expected in six weeks when new plants of the General Chemicals Co. at Front Royal, Va., and Davison Chemical Co. at Baltimore start producing. Ammonia has been



In one section of Denver's revitalized ammunition plant, employees work three shifts to finish and inspect artillery shells turned out under Henry J. Kaiser's new \$41,000,000 contract.

distributed by specific allocations to individual companies.

The plan is expected to pinch the supply of superphosphate to the Agricultural Adjustment Administration for its so-called give-away fertilizer program as, after war needs are met, sulphuric acid will be available principally to fertilizer companies which generally sell through regular trade channels. Fertilizer industry men claim that there is plenty of raw material to make all the fertilizer which can be so sold, but not enough to make superphosphate for the AAA.

Under the allocation plan, the producers of sulphuric acid individually will be told how much acid they must sell for fertilizer, how much for other purposes. Each producer may sell to whom he chooses for the purpose specified and, presumably, will take care of his old customers first. But the plan will not assure a supply to new users.

### CO-OPS WIN ICC CASE

Farmers' cooperatives are as pleased with a recent court victory in the transportation field as they are over winning the dividend-tax exemption victory in the United Cooperatives case (BW—Nov. 11'44, p24).

In Minnesota, a federal district judge has denied the Interstate Commerce Commission an injunction to compel



## The life of a tire is measured here

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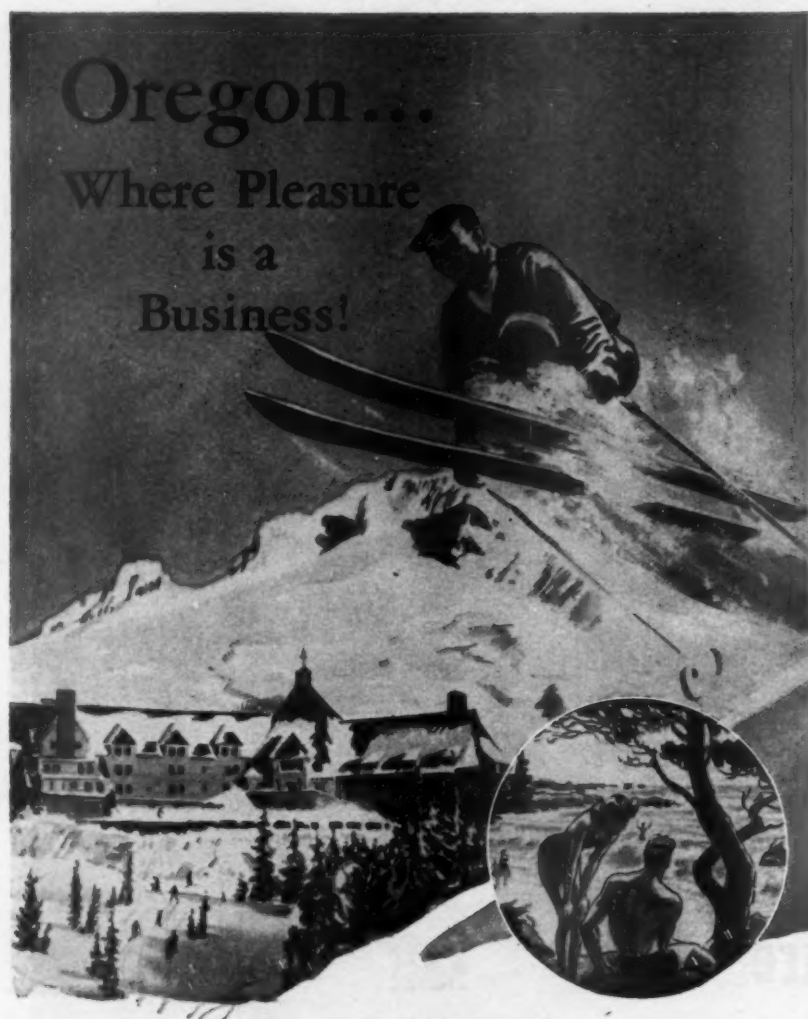
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ONE NEWSPAPER ALWAYS LEADS—IN OREGON IT'S THE OREGONIAN

# The Oregonian

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PORTLAND, OREGON

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the Jamestown Farmers Union Federated Cooperative Transportation Assn. to procure an ICC certificate of public convenience and necessity as a condition of operation.

The association supplies cooperative transportation at what might be called the wholesale level. Its trucks haul livestock, assembled from various cooperative locals, to the St. Paul market, returning with supplies, largely purchased from the Farmers Union Central Exchange, for distribution through local co-ops. Nonmembers buy between 3% and 14% of these supplies.

The Transportation Act of 1940 exempts bona fide farmers' cooperatives and federations of such co-ops from obtaining ICC certificates. ICC contends that the privilege should be restricted to local co-ops serving farmers directly.

## Plenty of Meal

Restrictions are removed on protein meal in commercial feed mixes for livestock, but demand is slackening now.

Fearful of getting stuck with a slug of cake and meal feed for livestock, the War Food Administration now is allowing commercial feed mixers to use all the protein meal they want in their manufactured products.

• **Demand Slackens**—The joker is that because of record crops of feed grains and less livestock on the farms this season, the demand for protein meal won't be as good as it was last season.

Having to look only at their sales accounts to realize this, the feed mixers are likely to do little forward buying, in the hope of picking up government price-supported meal for less money later on.

• **How It Started**—The trail winds back to 1942 when oilseed crushers were guaranteed minimum prices for meal and cake to enable them to pay high support prices to farmers. Production of soybeans, flaxseed, and peanuts zoomed above prewar volume, a record tonnage of meal and cake was produced, but a rapidly multiplying livestock population made away with it all in 1943.

The demand for protein meal exceeded the supply, farmers complained they couldn't get enough, and beginning in 1944 WFA ordered crushers to set aside part of their meal and cake for allocation and distribution by the agency.

• **Situation Changes**—As a part of this program, the feed mixers were ordered to limit their use of protein meal to



the average of the quantities they had used in 1942-43. Meanwhile, hog production had declined, but because of a shortage of feed grains, there was a good demand for meal of all kinds.

Now the situation is different. The supply of protein meal is no bigger than it was last year, but in relation to the number of livestock it's the biggest ever. Added to this is a record tonnage of millfeeds.

**To Lower Ratio**—WFA still requires the oilseed crushers to set aside 20% of their output of meal for WFA account, but this proportion will be lowered after winter livestock feeding requirements have been met in the South and Southwest.

Meanwhile, the Bureau of Agricultural Economics is forecasting generally lower feed prices, down at least to WFA support levels. Just the same, WFA figures that it won't have to buy any price-supported meal until next spring.

**May Go to Europe**—Any surplus WFA accumulates then may be sold for export—possibly at subsidized prices.

## Insulin Shortage

OPA boosts prices for animal glands, source of drug on which diabetics depend, but more barriers remain.

Pharmaceutical houses are having a difficult time procuring adequate supplies of hog, calf, and beef pancreas glands to meet the need for insulin, a drug upon which an estimated 1,000,000 diabetics in the U. S. depend in order to live almost normal lives.

• **Glands Tanked**—The pancreas gland is the sole known source of natural insulin, and it is a deficiency in insulin production by the Islands of Langerhans in the pancreas glands of humans which results in diabetes, a condition of excessive glucose (sugar) in the blood stream. To offset this insulin deficiency diabetics inject insulin manufactured from the pancreas glands of animals.

Although 1943 was the greatest meat

slaughter year in animal numbers in history, the pancreas glands of only about one-third of the hogs, calves, and beef slaughtered that year were saved and sold for the production of insulin. And this year packing and slaughtering houses are simply "tanking" this gland along with fat, viscera, and offal.

• **Prices Increased**—They are doing this for a variety of reasons the most important of which are a manpower shortage in slaughter houses; a growing unavailability of quick freezer space; and, until recently, the low "freeze" prices slaughterers got for this byproduct.

However, on Nov. 24, OPA, at the request of the pharmaceutical trade, increased prices and placed gland sales on flat cents-per-pound ceilings. From low "freeze" prices of around 7¢ to 10¢ per lb. OPA boosted pancreas gland prices to: hog 12¢ per lb., calf 28¢ per lb., beef 16¢ per lb.

Calf pancreas glands contain a high percentage of insulin and therefore get the higher price.

• **Two Problems Remain**—While these higher prices are expected to aid the

## Postwar Commitments

The promise of postwar aggressiveness in business and the assurance of postwar jobs is made most apparent in current reports of plans for business expansion, expenditure on new construction, mergers, and additions to production lines. Typical announcements, some covering work already in hand, all directed to postwar business, include:

**Albion, Mich.**—General Electric Co. has purchased a 15-acre site on which it plans to erect a 200x400-ft. plant for the manufacture of plastics, expected to employ about 500 persons.

**Chicago, Ill.**—Rock Island Lines has announced a \$1,190,000 project involving the complete reconstruction and rearrangement of its coach yards and shops for the repair and conditioning of passenger car equipment. Nucleus of the program will be a new coach and paint shop, car servicing structure, and testing laboratory.

**Bauer & Black**, manufacturers of surgical dressings, is starting an expansion program on land adjoining its property at 2500 S. Dearborn St. Construction is to include a three-story factory, a one-story building, and an extension to be added to the present plant.

**Oliver Corp.**, farm machinery manufacturers, has made initial com-

mitments for plant improvement and equipment to cost \$4,500,000.

**Stewart-Warner Corp.** is planning to convert its 183,000-sq.ft. shell fuse plant to the rapid postwar production of civilian radios at a one-shift daily output peak of 3,500 sets. Plans call for the installation of three 270-ft. powered conveyor lines, for a capacity employment of more than 2,000 persons.

**Cleveland**—Air Reduction Co. has acquired Hospital Supply Co. and Watters Laboratories Consolidated, both of New York, and will operate them to add to its service in supplying anesthetic gases and equipment to dentists and hospitals.

**Forest City Foundries** has awarded a general contract for the remodeling of its present buildings and for the installation of dust collectors and machinery for handling sand and mold equipment.

**Detroit**—Apex Chemical Manufacturing Corp., producer of emulsion and alkali cleaners, plans to buy or build a plant triple the size of that in which it started business shortly before the war.

**Detroit Edison Co.** has announced that in the first ten postwar years it expects to spend \$125,000,000 on service requirements of the Detroit and southeastern Michigan areas.

**Great Falls, Mont.**—Home Oil &

Refining Co. will construct a \$500,000, 90-mile, 5-inch oil pipeline with a capacity of approximately 5,000 barrels of crude oil daily to carry crude from Cut Bank to its refinery at Great Falls.

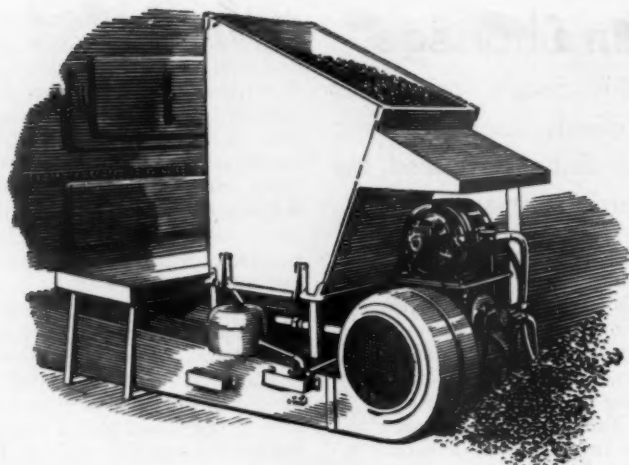
**Louisville, Ky.**—Brown-Forman Distillers Corp. has announced a \$3,000,000 construction program for Louisville, covering a new office building, five warehouses, a bottling plant, feed recovery mill, and boiler plant.

**Richmond, Va.**—Thalhimer Brothers, department store operator, has acquired property for a postwar expansion program which calls for the erection of two eight-story buildings.

**Sarasota, Fla.**—Florida Power & Light Co. has drawn up plans for the postwar construction of a \$1,500,000 power plant to take care of a demand for six times Sarasota's present power consumption.

**San Francisco**—American Hospital Supply Corp. of Chicago is opening office and warehouse facilities to serve the eleven western states, Hawaii, Alaska, and the Orient.

**Sunbury, Pa.**—Westinghouse Electric & Manufacturing Co. plans to spend more than a million dollars in swift reconversion of its Sunbury plant in which the company's postwar production of home radio receivers is to be centered.



# NEEDLE BEARINGS

*will be More Popular in  
Automatic Stokers, too...*

Automatic stokers that increase combustion efficiency and lower fuel cost aren't drawing-board dreams. They are tangible, proved successes of many seasons—and a sizable share of their dependable performance is being credited to the use of Torrington Needle Bearings.

Today, thousands on thousands of these modern, anti-friction bearings are easing the operating load of coal feeders—helping them to deliver around-the-clock, maintenance-free service. And from war's end on, the automatic stoker that you may choose to work beside your furnace will produce more heat... save more fuel... consume less power. Because design engineers will be utilizing the advanced design advantages which stem from the smaller size, lighter weight, higher capacity and efficient lubrication of Torrington Needle Bearings.

If you are a manufacturer who uses bearings, consider the production and sales advantages that can be gained through the use of Needle Bearings. Listed here are a few of the principal features:



- |                       |                          |
|-----------------------|--------------------------|
| 1. Small size         | 4. Efficient lubrication |
| 2. Light weight       | 5. Ease of installation  |
| 3. High load capacity | 6. Low cost              |



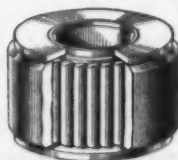
Complete information on types, sizes, and ratings, along with a list of typical Needle Bearing applications will be found in Catalog No. 30-A. Send for your copy today.

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# TORRINGTON NEEDLE BEARINGS

drug industry in obtaining at least a normal supply of glands, the problem of increasing production to meet existing need (higher than normal because war-torn European countries must look to the U. S. for insulin) still faces the barrier of manpower shortage in slaughtering houses and the lack of freezer space.

• **Headache for 1945**—The biggest manufacturer of insulin in this country is Eli Lilly Co. of Indianapolis. Lilly produces at least 60% of the substance, using about 5,000,000 to 6,000,000 lbs. of pancreas a year. All other manufacturers, including E. R. Squibb of New York, Sharpe & Dohme of Philadelphia, and Armour & Co. of Chicago, use a total of around 4,000,000 lb.

Another headache facing the drug industry is the expected reduction, this coming slaughtering year, in the number of hogs that will be butchered. This reduction is expected to be around 25%. Even with a 10% expected increase in beef and veal slaughter, the total livestock kill will be off 15%.

The drug industry is wondering just what this will mean in the way of pancreas supplies. Formerly they made their purchases from large slaughtering houses, but now they are contacting small slaughtering plants as well in the hope of getting needed supplies.

## P.S.—SLOT MACHINES

Anyone who has fed nickels into a slot machine—only to see the next player hit the jackpot—will be interested in learning what the "official take" is.

As a postscript to the "one-arm bandit" story (BW—Nov. 11 '44, p48), the president of one of the five big slot machine manufacturing companies in Chicago has revealed that it's 23% of the money that is played into them. That's the take for 98% of the machines; about 2% are made to retain 28%.

This manufacturer asserted that it would cost an owner of the device about \$2,000 in dies, jigs, etc., to change the "take."

Most of the slot machines are sold to operators who place them in restaurants, taverns, etc., on a 50-50 basis, and service them. A survey of several thousand machines, according to the manufacturer, showed an average weekly profit of less than \$5 a machine to the operator. On such a basis, the owner of a \$100 machine would net \$260 a year.

Wisconsin, like 46 other states, does not legally license slot machines, as previously reported, but tolerates them. Nevada is the only state licensing them. The \$100 annual federal tax stamp applies to each and every slot machine, not to the establishment regardless of the number operated, as reported.

## Housing Site Safe

Businessmen in Columbus donated \$52,500 to assure slum clearance project. Action sets a precedent in public housing.

In selecting sites for slum clearance projects, public housing officials usually run into two major problems: (1) Slum area property near the heart of a city is apt to be too expensive; (2) use of less costly land farther out provides new housing but leaves officials with the tough job of enforcing demolition of an equivalent number of slum dwellings.

**Slum Area Selected**—These were the problems that faced the Columbus (Ga.) Housing Authority in planning a 160-unit Negro housing project. The logical site was a slum area near the downtown district. Selection of this site would rid the city of 83 unsightly shacks (occupied by 123 families), but Washington housing officials had to turn it down because it would add \$100,000 to the cost of the development.

It was at this point that Columbus businessmen came to the rescue with cash donations of \$52,500, marking the first time in this country that private and government funds have been pooled on a government-sponsored housing project.

**Volunteers to Get Money**—C. F. Williams, a contractor, volunteered to raise the additional funds, and with Walter A. Richards, chairman of the Columbus Planning Commission, put the problem up to Columbus businessmen. Donations ranged from \$250 to Nehi Corp.'s \$18,000.

The only restriction on the \$52,500 gift was that the money be used to eliminate slum houses in the Wynton Hill section, the area which the local housing officials had chosen.

After the business group had raised the cash, the municipal government agreed to cooperate with \$32,500 worth of street grading, water lines, and other improvements, and the county appropriated \$12,500 for a new bridge leading to the project.

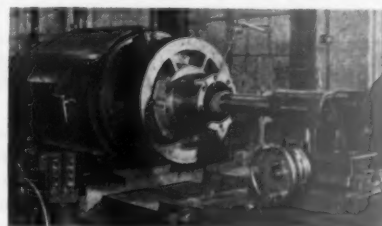
**Progress on City Plan**—Brown Nicholson, executive director of the Columbus Housing Authority, pointed out that approval of the Wynton Hill site, rather than the alternate location several miles out, enabled the municipal government to make considerable progress on its city plan. In addition to clearing a slum area, the housing project development work included straightening of a creek and providing right-of-way for a bordering parkway.

## IN THE NEWS WITH TORRINGTON BEARINGS



(Above) **MEETING DESIGN REQUIREMENTS** of the Emsco Derrick & Equipment Company, the engineers of Torrington's Bantam Bearings Division custom-built the 27½" O.D. Radial Roller Bearings employed in the sheaves of the crown and traveling blocks. The bearings, mounted on a center drum, are located close to the rope grooves to conserve wire line, prevent hazardous tilting, and to minimize wear on the sheaves.

(Below) **GENERAL UTILITY** makes this Williamette Hyster winch, installed on a Caterpillar tractor, adaptable to either towing or hoisting operations. Designers of this versatile unit selected heavy-duty Torrington Needle Bearings for use in the idler and reverse gears, since their compact design and high load capacity made them ideal for this application.



(Above) **GRINDING HEAVY PARTS** to precision limits is the important operation performed by this mammoth grinder, built by the Ingersoll Milling Machine Company. Engineers specified the installation of Torrington Bearings to carry the heavy radial and thrust loads encountered in the operation of the spindle located in the large cylindrical housing.

**TORRINGTON BEARINGS**

STRAIGHT ROLLER • TAPERED ROLLER • NEEDLE • BALL  
THE TORRINGTON COMPANY • BANTAM BEARINGS DIVISION  
SOUTH BEND 21, INDIANA



# Tideland Oil

California hopes to boost the Coast's petroleum supplies by tapping underseas pools. State law complicates drilling.

The Reconstruction Finance Corp. is negotiating a deal whereby Los Angeles refineries will buy about 20,000 bbl. of oil in West Texas daily, with RFC subsidizing shipment by tank car to the West Coast.

• **Reveals the Need**—This fact—better than any amount of statistics—reveals the Coast's crying need for more oil. California's production now is running 875,000 bbl. daily, and Washington is pleading for stepped-up output. Thus far, greater production in the proved fields hasn't met the need.

The answer may be found in underseas oil pools lying offshore, but tide-water drilling is beset with complications.

• **State Controls Tidelands**—What are the possibilities that rich new oil "fields" may be found under the ocean? If the oil is there, in vast quantities as more than one geologist has predicted, who owns it? How can it be recovered? How will drilling and production costs compare with oil operations on land?

In California, the ownership question comes first, because the state controls all tidelands (land lying under ordinary high tides). In a few cases the state has given cities tideland rights, and a court decision has approved some tideland oil drilling, provided that the royalties from the oil are used for the promotion of navigation and commerce.

• **Drilling Restricted**—But a state law prohibits directional drilling to tap these state-owned offshore pools, unless there may be danger that the state-owned oil is being drained into private wells on shore.

California's attorney general recently ruled that a "threat of drainage" is enough to justify the state in asking for bids, allowing private companies to tap the offshore oil. The successful bidder would be the one offering the state the highest royalty.

Otherwise, the State Lands Commission cannot take action to develop the offshore oil, until the present drainage law is changed. Last spring there was an unsuccessful effort to change this law. In 1945, it is expected that legislation will be sought again to authorize drilling under state control.

• **Delays Drilling**—Meanwhile Standard of California has leased rights on the Hollister Ranch, extending some 20 mi. along the coast near Santa Barbara, but

has held off drilling near the shore until the legal problems are solved. The state considers that this planned operation is a "threat of drainage" and has invited bids for drilling on adjacent tidelands.

But there are additional complications for the state, for shore lands from which oil can be reached in many cases are privately owned. In such cases, the state might invite bids on drilling sites below a "fill" on tidelands and condemn a right-of-way if necessary.

• **Pier Drilling Prohibited**—Drilling is now permitted only from uplands, fills along the shore, or fills on tidelands. The present law prohibits piers, and barges have not been tried in California. Barges are used in relatively shallow, calm waters, in the Gulf region, but nobody knows whether they would be feasible in the open ocean. Costs are hard to estimate, but oil men figure that they undoubtedly would be much higher than for vertical drilling on land.

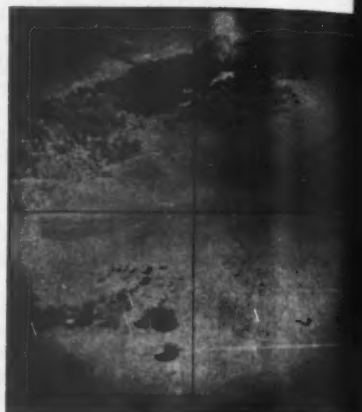
## OUT OF THE CLOUDS

From beneath the Army's heaviest veil of secrecy come the first pictures of the famed Norden bombsight (below left). Operated by the bombardier (below right), this marvel of gears, gyroscopes, and lenses takes over complete control of the plane—via its automatic pilot—during its half-minute bombing run. Destruction begins a few seconds after the sight's cross-hairs (right) bisect the target and bomb releases are tripped. Developed long before Pearl Harbor, this intricate electrical device became as much a nationwide industrial secret as a military one. For in addition to its

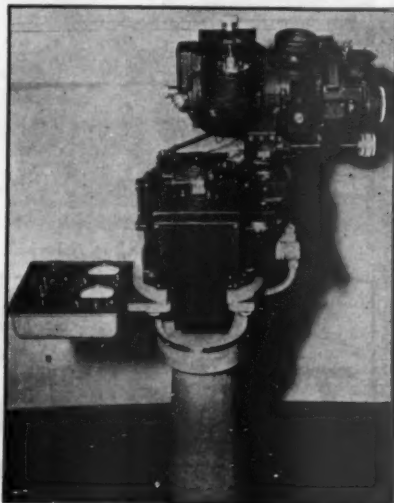
Tideland rights have been given to Long Beach, Redondo, Newport Beach, Santa Monica, and Los Angeles, and the latter includes San Pedro, Wilmington, and Athens.

Prospects for underseas oil are reported all along the California coast from Santa Barbara County south to the Long Beach area. Deposits are believed to exist off Point Conception, Hollister Ranch, Capitan, West Wood, Coal Oil Point, Goleta, Santa Barbara-Mesa, Summerland, Carpinteria, Santa Clara River, El Segundo, and the Wilmington-Huntington Beach area, which includes highly productive shore fields. Royalties to the state range from 16½% to 45%.

• **Two Producing Areas**—At present there is production in a large volume from Huntington Beach and Elwood, from which the state derived royalties of \$677,560 in July and August of this year. Both large and small companies are operating in this area, with produc-



prime producer, New York's Norden Co., many subcontractors are engaged in making precision component parts in quantities for the sight.





## More Power To Them!

Millions of fighting Americans who have faced a case-hardened enemy through the sights of a gun won't be looking for praise or promises when the shooting stops.

They'll be looking for jobs—steady jobs... a real chance to work and build.

How well will industry be prepared to meet this problem? For a clue, let's look into the wartime record of the industry that supplies the basic raw material of all production—the power industry. Here are a few highlights:

1. Annual power output raised from 137 billion to 230 billion kilowatt hours... almost 60%.
2. Generating capacity boosted to nearly 50 million kilowatts—equal to 70 million horsepower, or 7 H.P. for every American worker. Compare this with  $3\frac{1}{2}$  H.P. for each worker in World War I.
3. Industry supplied with 50 per cent more power. (To visualize

*what this means, note that all household users put together consume only 14 per cent of our total electrical output!)*

4. Generators, turbines, transformers, conductors—all crowded beyond intended capacity. Water sprays and other ingenious methods devised to keep overloaded equipment from overheating.

5. In spite of all this—plus a drastic manpower shortage—no rationing, no power famine, no rate increase for home or factory!

Can you think of any industry capable of such proud performance

in war failing to provide real opportunity in peace? Of course not—and neither can Jenkins! Jenkins looks forward with the power industry to a peacetime era of new progress for able men and dependable equipment. Just as there have been hundreds of thousands of power jobs for Jenkins Valves in war, Jenkins plans on still greater service after victory—with valves that will more than justify industry's faith that "It Pays to Standardize on Jenkins".

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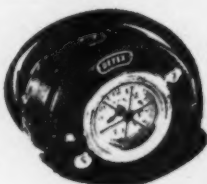
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tion running about 1,800,000 bbl. monthly.

At Seal Beach, near Long Beach, about six months ago, a 7,000-ft. prospect well was slant-drilled from a point one-half mile inshore, in an attempt to tap a supposed offshore pool at a vertical depth of 4,500 ft. There was trouble with broken drillpipe, and plans have now been made to drill from nearer the shore.

• **Would Protect Beaches**—Geologists hold that the productive Long Beach oil fields presumably have structures continuing under the water. These pools now could be tapped with modern drilling techniques, without sacrifice of harbor facilities or recreational beaches, which the State Lands Commission strongly favors protecting.

One Long Beach project, not carried out, proposed excavating tunnels under the ocean, from which to drill for oil.

Another suggestion is that the proposed extension of the Los Angeles harbor breakwater to Seal Beach include a wide island to provide an excellent drilling site for tapping underseas oil from many directions.

• **How Oil Is Found**—Tidelands are prospected by various methods, including the seismograph and by diving to follow rock structures. At first, geologists themselves went under water, blew sand from the rocks by water jet, and examined them. This was hard on geologists, so divers were taught to do the work.

## More Irrigation

Western reclamationists urge abandonment of limitation on the amount of land eligible for water from government project.

The National Reclamation Assn., organ of irrigationists in 17 western states, has moved to put an end to a 42-year-old reclamation law principle (intended to encourage development of family farming) that the government's irrigation works should supply water to no more than 160 acres under one ownership.

• **Amendment Indorsed**—The association voted unanimously, at a meeting in Denver, to support the Elliott amendment pending in the Senate to permit supplying water to farm units of any size from government works in the \$300,000,000 Central Valley project of California (BW—May 13 '44, p. 21).

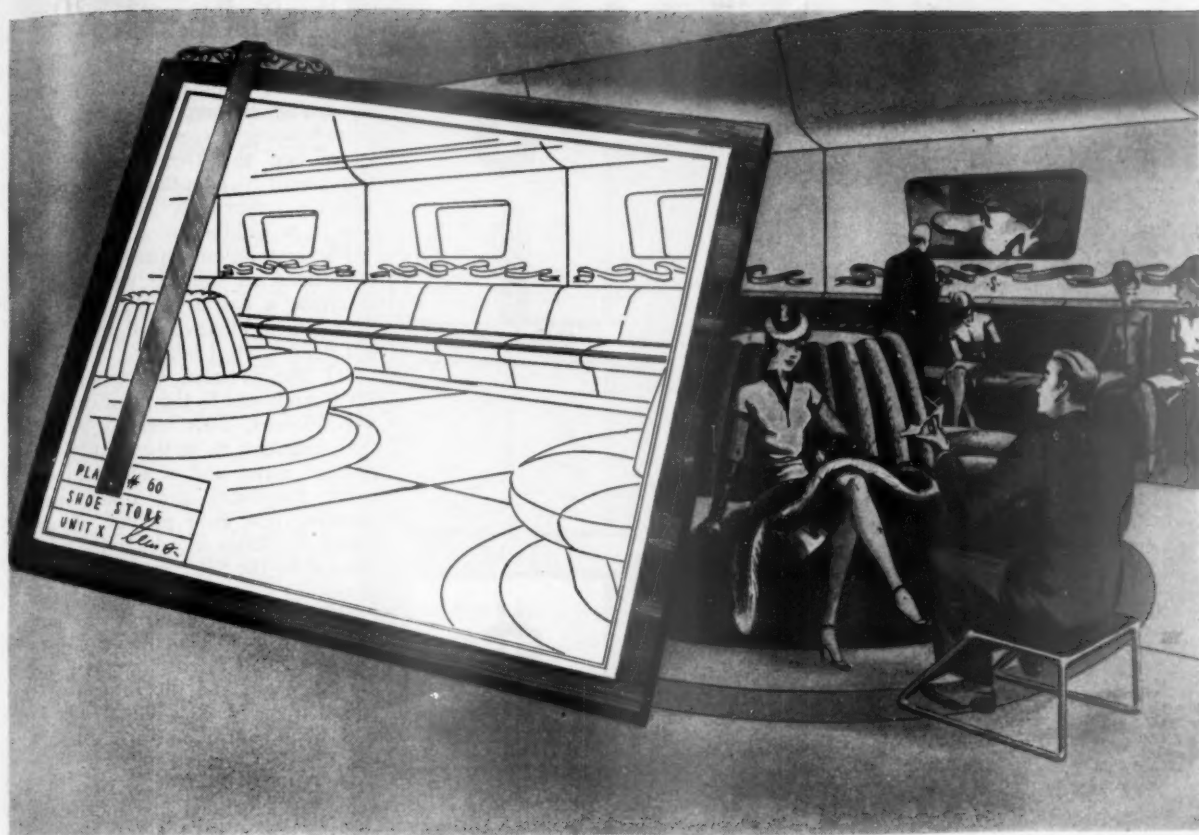
The irrigationists went further and voted that the reclamation act be amended so that the 160-acre limitation should not apply in future to any projects supplying supplemental water to established farms. This would remove the limitation for most of the numerous irrigation projects planned for postwar construction. Such new land projects as the 1,200,000-acre development planned under the Grand Coulee



Campaigning for repeal of restrictions on government irrigation waters are executives of the National Reclamation Assn. (left to right, seated): Ora Bundy, newly elected president; Rob-

ert W. Sawyer, first vice-president; (standing) Floyd O. Hagie, secretary-manager; O. S. Warden, past president; Harry N. Polk, second vice-president; and James Ford, treasurer.





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That's why your competitors, and you too, no doubt, have placed Modern Air Conditioning high on the list of essentials in the postwar stores that are being planned today.

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For executives, architects and engineers now planning postwar building and modernizing, dependable data and competent application engineering assistance are ready.

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# WHITING

# CRANES

Overhead  
Traveling

Dam would still be subject to the acreage limitation.

• **Approved in House**—The Elliott amendment would be attached to the rivers and harbors bill. The House overwhelmingly approved the amendment, and the Denver action probably means its adoption in the Senate. A fierce controversy has been waged over it in California.

The association approved two other resolutions on subjects which promise to create a battle in the Senate over the rivers and harbors bill and the post-war flood control bill:

(1) The so-called O'Mahoney-Millikin amendment to the flood control bill was indorsed. This measure would declare irrigation to be the primary use of western water and would compel the Army Engineers and other agencies planning new river projects to permit review by states in which the projects lie—and by the Secretary of the Interior, in regions west of the 97th meridian.

With this resolution the association adopted another demanding passage of the joint plan recently worked out by the Engineers and the Bureau of Reclamation for a \$1,350,000,000 irrigation, flood control, and navigation project for development of the Missouri River Basin (BW—Nov. 18'44, p. 20). And delegates demanded that the Engineers and the bureau get together similarly in any western valley where projects conflict.

(2) The association adopted a resolution opposing the President's recently renewed campaign for seven Tennessee Valley Authority-type authorities to develop major river basins, specifically including those of the Missouri, the Columbia, and the Arkansas.

## YULE TREES FOR ALL

There will be enough Christmas trees this year to satisfy all needs, the Office of War Information reported this week. On the basis of data supplied to OWI by the Dept. of Agriculture and the War Production Board, it appears that the 1944 supply will be at least 10,000,000 trees.

The agency coupled its announcement with a warning. Last year slow initial deliveries to retailers led to consumer anxiety and high retail prices. Later deliveries then glutted the market, prices broke to almost nothing on Christmas eve, and a sizable number of surplus trees had to be destroyed. OWI's warning to consumers is: Don't get worried if early deliveries are slow; don't bid up prices to snap up the first trees available; there will be plenty for all.

Christmas trees this year, as in 1943, will not be subject to price controls.

## Rinse 'Em White

New centrifugal washing-extracting process excites interest in laundries as saver of time, suds, water, and power.

Intently watching the results of a revolutionary washing process that is being tried out by approximately 100 laundries throughout the land, the hard-headed laundry industry is becoming more and more excited over the prospects of real relief in a form which is contingent upon the edict of any government agency.

**Doubles Capacity**—Invented by How Fink, owner of a small laundry in Mosha, Wis., the centrifugal washing-extracting method looks just too good in these times because it requires no new equipment or washing supplies. The method is essentially a rearrangement of the orthodox washing procedure which, according to Fink, cuts the washing and extracting (wringing) time in half, thereby doubling the productive capacity of a washroom. But in addition Fink's system calls for 50% less water than is ordinarily used.

Where centrifugal washing-extracting departs basically from standard commercial laundry methods is immediately following the second suds bath. Ordinarily one or two more suds baths would be given a washer load of family wash followed by three separate rinses with hot, soft water. Then would come a cold rinse, after which the clothes are transferred from the washing machine to a centrifugal extractor where excess moisture is removed. Time: about one hour and ten minutes.

**Fewer Suds and Rinses**—Fink skips the second and third sudsing operations as well as all the hot water rinses. Following the second suds the load is transferred to a centrifuge where in one continuous operation lasting about 15 minutes the suds are extracted, cold water is sprayed for a few minutes through the clothing from a shower head located in the center of the extractor bucket, and normal extraction of moisture follows.

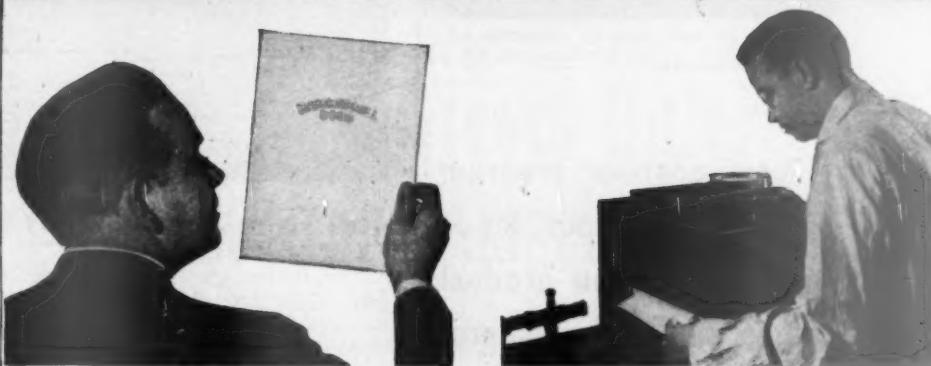
The complete centrifugal washing-extracting method as described in Fink's application for a patent calls for the use of low titer soap which is made from vegetable oils and is regularly used by laundries for washing colored fabrics, silks, and woollens in tepid water. Fink claims a powerful cleansing action when the suds are being extracted by centrifugal force.

**Granted 104 Licenses**—While many local laundry owners discount the im-

## Here's why we waste paper!



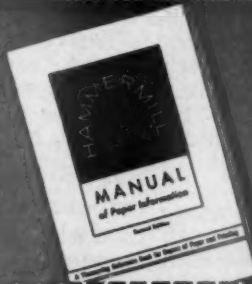
"This poor paper we have been using lately scuffs every time we erase on it. We have to re-type the whole letter to make it neat. That's why we waste so much paper—and time, too."



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THE JOB**

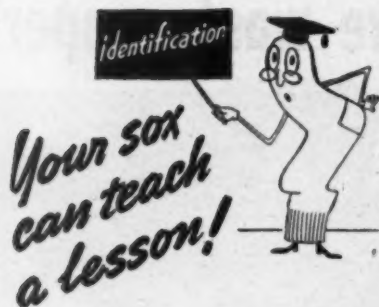
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BW-18-B





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KAUMAGRAPH CO., 1319 POPLAR ST., WILMINGTON, DEL.  
NEW YORK OFFICE • EMPIRE STATE BUILDING, N. Y. 1

If your postwar program is well thought out, let us get together on product details and production procedure. Our business is engineering for sales and production as well as metal parts production in our plant for assembly in yours.

Our informatively illustrated, 36-page, plastic bound book, "INGENUITY" will be sent to any executive who requests it on company stationery. Address me personally. Joseph J. Cheney, President.

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INGENUITY Since 1923

TOOL & MANUFACTURING CO., Inc.

19 HOWARD ST. AD K-36 BUFFALO 6, N. Y.

portance of the suds-squeezing feature, they are willing to admit that the shower bath system of rinsing in an extractor is something that someone should have thought of before this. Fink has granted licenses for the use of his system to 104 laundries.

At least one major manufacturer of laundry equipment is conducting extensive tests along the centrifugal washing-rinsing line to ascertain the possibilities of built-in shower heads in postwar models of extractors. Another manufacturer is said to be developing a combination washer-extractor in which

centrifugal action will be employed in all sudsing actions.

● **Power Plants Eyed**—Generally speaking, commercial laundries are large users of electric power but poor prospects for public utilities. This is because most medium and large laundries obtain their power as a byproduct of water heating—water being heated by low-pressure exhaust from steam engine-generators. Fink's method catches on, laundry power plants may be converted to any one of several different setups, according to laundry engineers.

The high-pressure steam boilers will



## The Tribes Sound a War Cry for Liberty

The Indians are stirring. A few generations ago that might have meant the warpath but now the Indians are organizing peacefully to present demands for fuller social and economic freedom—a relaxation of federal controls. They are even planning to maintain a public relations man in Washington to present their case.

● **Convention Powwow**—Thus last week to Denver's swank Cosmopolitan Hotel came the men (above) of the tribes—100 delegates to set up the new National Indian Council as a sounding board for their claims and complaints. Theme of the meeting was not unlike Sitting Bull's famous sentiment: "God made me an Indian, but not a reservation Indian."

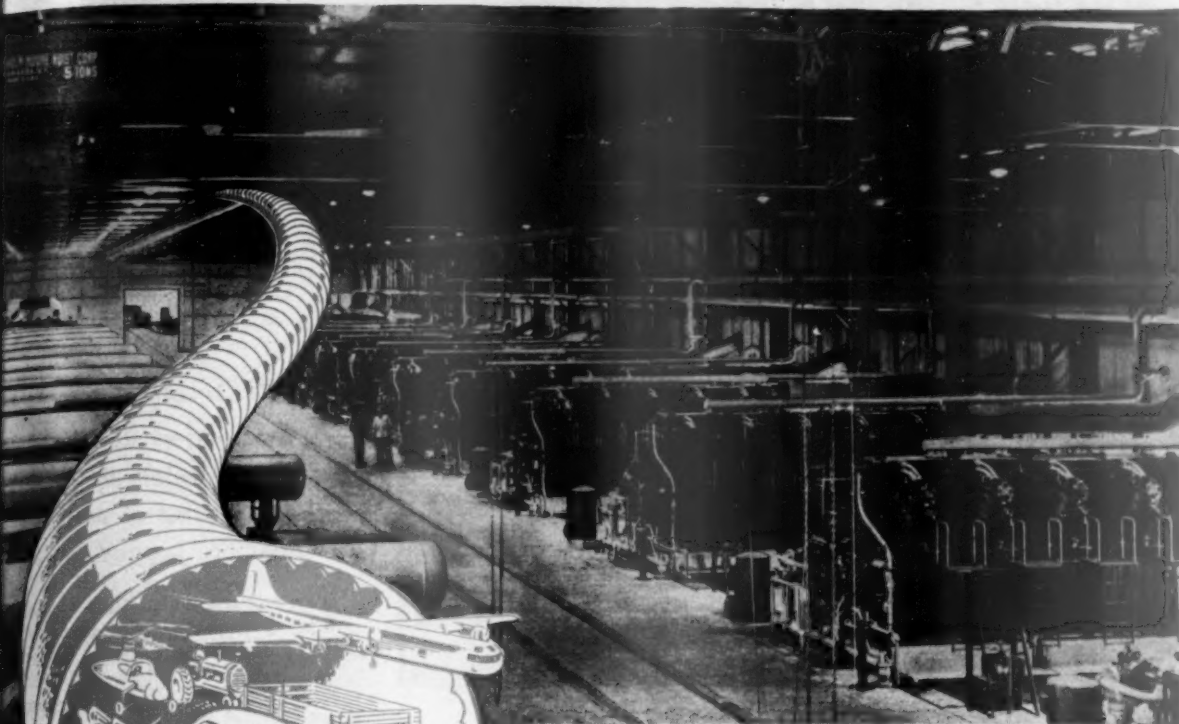
Although strictly a minority, the Indian population (400,000 U. S. citizens, including 32,000 in Alaska) is nevertheless a formidable business and commercial aggregate. It owns 56,093,710 acres of land in continental U. S., and in 1942 had an esti-

mated income of \$56,805,476.87—a statistical exactness that amuses the Office of Indian Affairs.

● **Earned-Unearned Income**—Actually the figure may be millions off for it includes tribal income not yet distributed, and \$15,000,000 of unearned income from oil royalties, relief, etc. As a result, the average family (of five) income was under \$900, with half the families getting less than \$500. Fewer than 4% make over \$2,000, and these include doctors, attorneys, judges, and businessmen, some operating individually, others as commercial representatives of their tribes.

Determination of the Indians to make themselves heard is reflected in the observation of one delegate at last week's meeting: "Let anyone who doesn't think our organization is effective, stick his hand into a hornets' nest." And curiously enough, the Indian Service, which has given the movement its informal blessing, may be first to feel those stings.

LOW COST POWER...TO WIN THE WAR NOW...AND THEN THE PEACE



## ...The Power That Destroys Hitler Can Restore America

**T**HIS is the scene of an American war miracle.

Here is the anvil on which chemically rich natural gases are hammered and reshaped by multistage compression into synthetic ammonia. It is one of the largest compressor installations ever made—24 huge Cooper-Bessemer 10-cylinder gas engines, delivering 24,000 horsepower, producing one all-important ingredient of high explosives to rain destruction on our enemies.

What of such production miracles when the war is won? Must they stop? Cannot engineering and production genius, which created scores of plants dedicated to destruction, convert them into instruments for betterment?

For example, ammonia is an essential ingredient of fertilizer; America needs huge quantities of fertilizer to restore war-depleted soils. Ammonia is a necessary material for refrigeration, for which the whole world offers waiting markets. Ammonia has many industrial uses, can have more.

Isn't it fortunate that the age of synthesis is

just dawning? America has poured out its wealth of natural resources and manpower for destruction; so also it must use unstintingly of its best to work restoration. Rebuilding calls for wise use of present production tools, as well as for development of many new ones.

Cooper-Bessemer is ready to serve the world of Tomorrow. Cooper-Bessemer has over a century of experience to employ in building compressors, gas engines, diesel engines, and related power equipment to meet the expanding needs of industry—efficiently, dependably, at low cost.



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worth its weight in gold—yet it comes to you absolutely without cost or obligation. Ask your G/W Dealer, or write today—on your company letterhead, please—to The Globe-Wernicke Co., Norwood 12, Cincinnati, Ohio. "Headquarters for Modern Office Engineering."

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what you have filed.



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remain. They furnish steam for processing such as drying and ironing. But with their hot water demand reduced as much as 75%, some laundries may shut down their electrical generating equipment altogether; others may make just enough power to heat the comparatively small volume of water required, and buy the rest from public utilities. Another possibility is the use of diesel-powered generating equipment, which until now has not been accepted generally by laundries because the exhaust heat is not sufficient to make enough hot water.

## Earners Speak Up

Macfadden study blames poor labor relations job for workers' distrust of employers. Remedies are suggested.

It's a rare day when a business organization deliberately tells management that it's done a poor job of labor relations, but Macfadden Publications, Inc., considers that's smart sales promotion.

♦ **Study Circulated**—As publisher of True Story, True Detective, Photoplay, and kindred magazines, Macfadden claims to have gained the confidence of the country's wage earners (most of its subscribers are in the less-than-\$2,000 income bracket).

It butters its bread on both sides by serving as self-appointed go-between for management and labor and has just mailed copies of its newest study entitled "What Shall We Do About It?" to 2,600 U. S. business executives.

♦ **Attitude Unchanged**—Interviews with hundreds of wage earners in their own homes have convinced Everett R. Smith, Macfadden research director and author of the study, that except for sharpened anxiety about postwar jobs, workers' attitudes toward business have not changed significantly since last year, when his earlier study indicated widespread distrust of management, its actions, and its motives (BW—Nov. 27'43, p104). This differs from the attitude reflected in the current studies made by Factory Management & Maintenance, a McGraw-Hill publication (BW—Nov. 25'44, p32).

The fault is basically management's. Smith asserts (1), because it is guilty of some of the abuses labor lays at its door and (2) because it has not explained its position to employees in language they can understand. Hence, Smith claims, workers get their information about business from government sources or from labor unions. As Smith sees it



workers reason that if business doesn't speak its piece, it either has no defense against criticisms, or doesn't care enough about its employees to tell them its side of the story.

• **Typical Questions**—Typical of questions that workers want their bosses to answer is, "What is American business doing toward postwar planning?" Recently Macfadden's monthly Wage Earner Forum survey indicated that 81% of the 1,800 participating wage earners "had heard nothing of any post-war plans by business or anyone else."

Other specific questions point up misinformation that Smith thinks management should correct: What is the truth about profits? (Smith says that many workers believe their company makes \$2 or \$3 clear profit for every dollar it pays in wages.) What about cost-plus contracts? (Smith claims that many workers believe that under cost-plus agreements, companies have profited by using more labor, more machinery, more materials than were needed.)

• **Think Unions Necessary**—Today's wage earners, Smith asserts, "look to unions and to government because they feel it is futile to look to the company for understanding." They are not uncritical of unions, but they feel an absolute necessity for them, particularly in order to prevent the cutting of basic hourly rates of pay after war contracts expire.

Smith's basic remedies for employee distrust add up to this: (1) Find out what your employees really think about your company, not what you think they think; (2) rid your plants, as far as possible, of conditions and policies to which workers object; (3) be frank in telling workers as much as you can about company objectives; and (4) talk in their language, not yours.

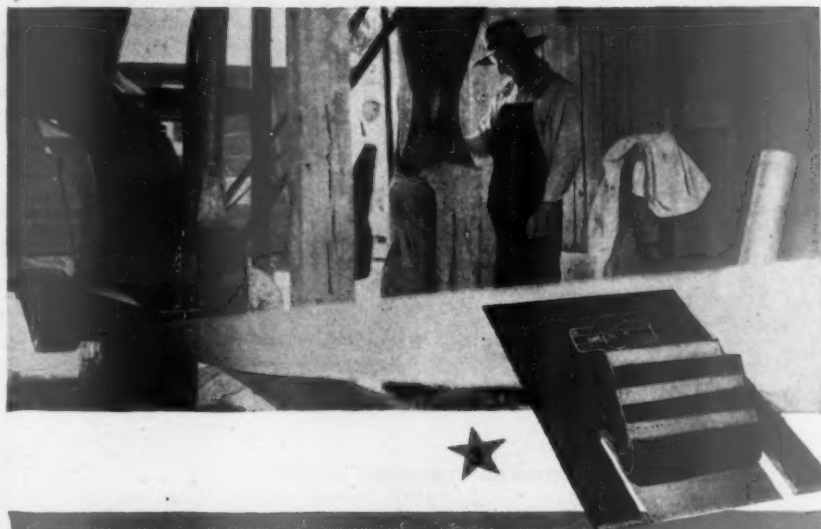
One way of talking that language, the study points out, is through advertisements of products and services workers want to buy (as distinguished from how-we-are-winning-the-war institutional copy, which they distrust), "if placed in media which have their confidence." And if management concludes that such fortunate media is a Macfadden publication, Smith will not object.

Apparently Macfadden is aware that if it sets out to explain workers' attitudes to management, it might also explain management's attitude to workers. In an interview, Smith hinted about a few undisclosed cards up Macfadden's sleeve along this line.

But he insists that the burden is primarily on each business to do its own educational job, because, he insists, workers do not believe printed generalities about management's virtues when they see—or think they see—contradictory evidence in their own plants.

*Can You Solve This One?*

Can you draw a perfect square which has one of these four stars in each of its sides?



*This was a Cinch to Thermoid*

The Hammermill, used extensively by farmers, has a drive pulley of small diameter traveling at high speed. This caused rapid failure of the conventional type of folded edge, spliced, endless farm belt by deterioration of the splice and ply separation. The problem was to design a belt flexible enough to resist ply separation and with a splice flexible enough to negotiate the small pulley without weakening.

Thermoid came up with the solution in its now well known Ham-R-Mill Belt. The splice was entirely eliminated by building the belt in a continuous winding of fabric plies. To prevent ply separation a skim layer of live rubber stock was inserted between plies. The belt was protected from moisture and weather with a special sealing lacquer on the edges and by a thin layer of skim rubber on the top. The contact surface remained the conventional friction surfaced fabric.

Numerous problems of this type are solved every day by Thermoid. Their solutions are comparatively easy because Thermoid research is constantly developing new applications of industrial rubber products to do a better job. If you are faced with an industrial rubber products problem call the Thermoid representative. Out of his experience, plus Thermoid's complete line, extensive research, and manufacturing facilities, may come your solution.

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## QUICK QUESTION QUIZ...

What does an  
"old salt" mean when  
he refers to a  
**FID?**



1. A conical wooden tool?
2. A fiddle?
3. A light rope used to moor a boat?

**ANSWER:** A fid is a wooden tool, shaped like a long, slender cone, and used to splice rope. You'll find that . . .

**SPlicing ROPE** requires expert workmen, and Plymouth has those experts. You'll find, too, that Plymouth Engineers can intelligently advise you and your employees on the selection and use of the right rope for each particular job. Usually, their recommendations lead to increased efficiency and longer rope life.

**PLYMOUTH'S ENGINEERING** Service is an integral part of our facilities for serving rope users . . . one reason why Plymouth is America's largest-selling rope.

. . . .

*We can't sell you Plymouth Ship Brand Manila Rope just yet, but we would like to talk with you if you have a rope problem . . . Plymouth Cordage Company, North Plymouth, Massachusetts and Welland, Ontario.*

**PLYMOUTH**  
CORDAGE PRODUCTS



THE ROPE YOU CAN TRUST

## Charcoal Iron

New Texas plant will also make chemical byproducts. Blast furnace came from Michigan and other equipment from Florida.

Texas' third modern-day venture in the iron industry—a \$3,500,000 charcoal iron and chemical products plant at Rusk—is scheduled for completion by Feb. 1. Production will include 100 tons of charcoal pig iron daily, plus byproducts of methanol, acetic acid, charcoal, sintered iron ore and blast furnace slag for mineral wool.

● **Hoping for Happier Fate**—Backers of the East Texas project, sponsored by the Defense Plant Corp., hope that it will not suffer the fate of the state's second iron plant, Lone Star Steel Co., whose blast furnaces at Daingerfield are still idle (BW—Oct. 28 '44, p. 17). Initial move in developing a southwestern iron industry—Sheffield Steel Corp. of Texas at Houston—is operating successfully on scrap and East Texas ore.

The Rusk plant consists of a blast furnace and sintering plant from Pembroke, Fla., and a chemical products plant from Wells, Mich.

● **Shortage of Wood**—The Wells furnace closed on Jan. 8, 1943, after operating three decades (BW—Sep. 11 '43, p. 39). The Delta Chemical & Iron Co. had been finding it increasingly difficult in recent years to obtain chemical wood for the manufacture of charcoal, used as fuel in smelting iron ore brought 50 mi. by rail from the upper Michigan mines.

It continued to operate its chemical plant, however, until its woodpile was used up.

The Pembroke plant was built originally to make elemental phosphorus from phosphate rock and blast furnace coke but did not prove successful and has not been operated since 1932. It will be integrated with the charcoal plant furnishing the fuel and with the central power plant that will use part of the blast furnace gas.

● **Large Deposits**—Underlying the area of the Rusk plant are large proven deposits of iron ore (limonite), according to developers of the project, and within 20 mi. of the plant is sufficient hardwood to last an estimated half century.

Several blast furnaces operated in the area from the time of the Civil War until the opening of the present century, usually utilizing charcoal as fuel, though one or two later furnaces burned imported coke. High point of production was in the nineties in the New Birmingham region near Rusk.

## DON'T LOOK NOW!

**...but one day soon this will be a safe, new U.S. Highway**

THIS is no road for your car now. It's a picture of a highway coming up. But it is also part of one of the greatest plans for American security and prosperity in the post-war years to come.

Road building is tremendous enterprise. Today, in the planning stage, it looks like jobs for seven million men and investment of billions a year—a big factor in the nation's basic economy.

New roads are needed—now. Before the war our great highway system carried traffic estimated in 1941 at 300 billion miles—about all the old roads could carry. New construction, stopped by war, must take care of expanding post-war transportation.

Power is the hub around which this whole operation turns. Road construction men are planning their work now, and that means big

International crawlers on the dirt-moving jobs.

These rugged tractors have been making history on some of the toughest assignments of the war. As battling "bulldozers" they've spearheaded the action on every fighting front, paving the way for our fighting forces. War has proved they have what it takes to shove America's peacetime highways through with speed at lowest cost.

Harvester also builds the power units that put the push behind all kinds of graders, shovels, mixers and other road-building machines. With this equipment on the job you'll soon ride new roads in a peaceful and prosperous U. S. A.

**BUY MORE WAR BONDS AND KEEP THEM!**

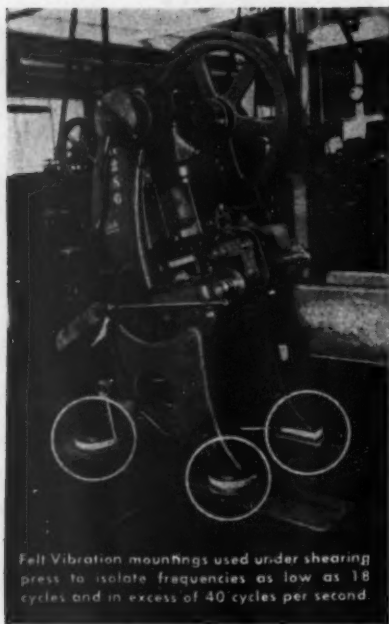


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## INTERNATIONAL POWER FOR POST-WAR







Felt Vibration mountings used under shearing press to isolate frequencies as low as 18 cycles and in excess of 40 cycles per second.

## Use **FELT** to ISOLATE VIBRATION Quickly and Economically

To isolate and absorb destructive vibration under machines exerting up to 50 lbs. per sq. in. pressure, select American Felt Company Vibration Felts of the proper density. Installation can be made speedily with a minimum of interruption to operation by placing Felt mountings under each leg, or at each corner of a flat bed. Data Sheet No. 10, "Vibration Isolation With Felt", contains theoretical formulation as well as practical data to assist you in the selection and application of Felt for the isolation of machinery. Your request for information will have immediate attention.

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TION ISOLATING FELTS AND INSULATING FELTS

# WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

## Increased Civilian Supply

Electric and gas domestic refrigerators, controlled by WPB Order L-5-c, and domestic washing machines, controlled by L-6, are subject to the "spot authorization" procedure (Priorities Regulation 25). Other items brought under PR 25 by this WPB action are tank wagon bodies for motor trucks and trailers (L-253); motorcycles (L-331); electric wiring devices and heater cord sets (L-277); caskets, shipping cases, burial vaults (L-64); toys and games (L-81); furniture and parts (L-260-a); logging, lumber, and wood products machinery (L-331); physical therapy equipment (L-259); luggage (L-284); antifriction bearings (L-154-a); light power-driven tools (L-237).

● **Electronic Equipment**—By amending PR 13, WPB has released from the idle and excess stocks of war contractors certain non-critical electronic equipment, parts, and components for domestic purchase and for export. Inquiries concerning radio and radar should be addressed to Wesley L. Smith, chief of the Component Recovery Section, Radio & Radar Div., Room 4057 Social Security Bldg., Washington 25, D. C.

● **Burlap**—Defense Supplies Corp. has been authorized by WPB to dispose of 1,500,000

linear yards of damaged burlap now held in government stockpile. The goods will be freed of all restrictions of Order M-47.

## Decreased Civilian Supply

WPB has ruled that sawmills cutting 5,000 or more b. ft. of hardwood a day must reserve certain sizes and grades of white oak, red oak, birch, beech, pecan, rock elm, hard maple, and tough white ash to meet urgent military programs. Grades and sizes affected are No. 1 common and better grades in 5/4 and 6/4 thicknesses (1 1/4 in. and 1 1/2 in.). (Direction 6, Order L-335, as amended.)

● **Phosphate Fertilizer**—War Food Administration has reduced its estimate of the amount available for 1945 crops from 7,000,000 tons to 6,500,000 tons of superphosphate. This may result in a smaller output of mixed fertilizers.

## Relaxed Restrictions

Restrictions of Schedule D, WPB Order B-98-b, on the use of steel plate, metal laths, aluminum, and hardware in petroleum construction operations covered by PAW Form 30 have been eliminated by WPB on the



Babcock & Wilcox Co.  
Bayonne, N. J.  
Bryan Engineering Co.  
New Albany, Pa.  
Burke Electric Co.  
Erie, Pa.  
Calumet & Hecla Consol-  
dated Copper Co.  
Calumet, Mich.  
C. P. Clare & Co.  
(Two plants)  
Clearing Machine Corp.  
Chicago, Ill.  
Columbia Aircraft Corp.  
Valley Stream, N. Y.  
Continental Electric Co., Inc.  
(Two plants)  
G. Felsenthal & Sons  
Chicago, Ill.

The Fultons Foundry & Ma-  
chine Co.  
Cleveland, Ohio  
General Motors Corp.  
Bloomfield, N. J.  
Goulds Pumps, Inc.  
(Two plants)  
Grand Rapids Brass Co.  
Grand Rapids, Mich.  
Hale Fire Pump Co.  
Conshohocken, Pa.  
Harrisburg Steel Corp.  
(Two plants)  
Harris-Seybold-Potter Co.  
(Two plants)  
Hoffman Radio Corp.  
Los Angeles, Calif.  
David E. Kennedy  
Brooklyn, N. Y.

Karl Kiefer Machine Co.  
Cincinnati, Ohio  
Lehigh Structural Steel Co.  
Allentown, Pa.  
A. J. Lindemann & Hoverson  
Co.  
Milwaukee, Wis.  
National Instrument Corp.  
Houston, Tex.  
National Tube Co.  
Lorain, Ohio  
Oxford Boatyard Co.  
Oxford, Md.  
Wm. Steinen Mfg. Co.  
Newark, N. J.  
Thwing-Albert Instrument Co.  
Philadelphia, Pa.

(Names and winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

recommendation of Petroleum Administration for War. Restrictions are relaxed on the use of steel sheet, steel strip, rails and cranes, and copper and copper-base alloys for PAW Form 30 operations. (Schedule D, Order P-98-b, revised.) Petroleum operators may obtain, without specific PAW authorization, \$25,000 worth of materials for certain production, transportation, and refining operations; formerly, they could get only \$10,000 worth without authorization. (PAO 11, 15, as amended.)

● **Surface Heating Equipment**—By revoking Schedule I of Order L-107, WPB has removed restrictions on the types and sizes of extended surface heating equipment that may be produced.

● **Lumber**—Direction 7, Order L-335, has been amended to permit sales of certain grades of Douglas fir, Sitka spruce, western hemlock, southern yellow pine, cypress, and redwood dunnage on uncertified and unrated orders if such sales do not interfere with certified orders.

● **Chemicals**—The monthly small-order exemptions for maleic anhydride and maleic acid, used chiefly in resins for paints, varnishes, and lacquers, have been increased from 10 lb. to 175 lb. by Schedule 68, WPB Order M-300. Schedule 19 of the order has been amended to remove controls over polystyrene and polydichlorostyrene solutions, and to bring ethyl cellulose under the order instead of under M-175, now revoked.

● **Domestic Ice Refrigerators**—Relaxed restrictions on iron and steel content will result in production of nearly normal prewar types under Order L-7-c, as amended. WPB expects to authorize enough steel to make 375,000 ice refrigerators by the end of 1945.

● **Aluminum Kitchen Ware**—Under CMP, manufacturers may obtain prime allotments of aluminum to fill preferred orders. On civilian orders, they will continue to obtain deferred (Z-1) allotments. (WPB Order L-30-e, as amended.)

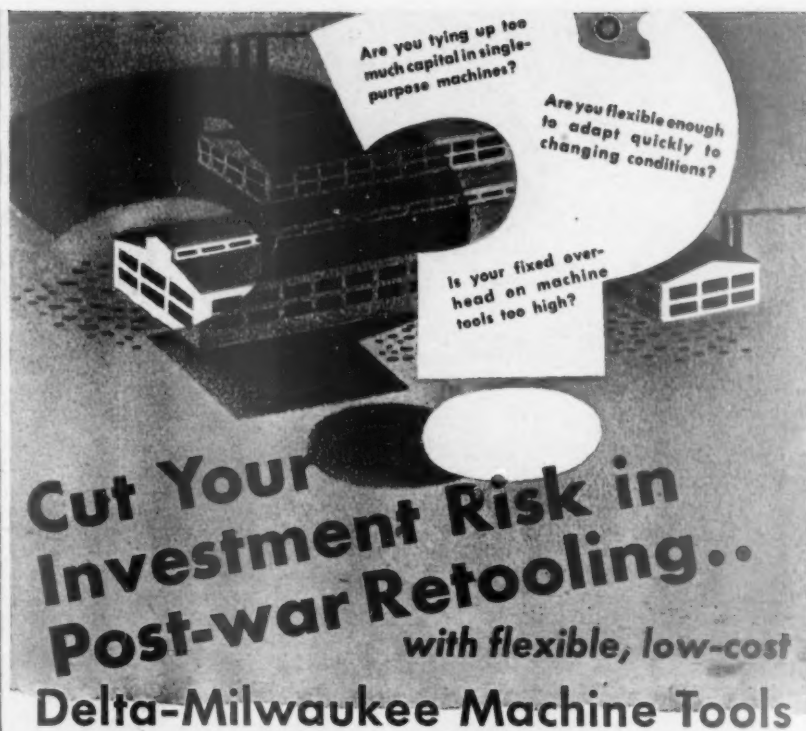
● **Scales**—WPB has removed simplification restrictions on railway track scales, portable beam scales, and certain other types and has freed from distribution controls Class B scales such as baby scales, egg-grading scales, milk, and dietetic scales. Production of Class B scales must be authorized in writing by WPB. (Order L-190, as amended; Schedules I-VIII, Order L-190, revoked.)

● **Tea**—To enable packers to take advantage of recent heavy arrivals of tea, WFA has ruled that they may accept during the last quarter of 1944 in addition to their regular fourth-quarter quotas as much as half of their quotas for the first quarter of 1945. Such acceptances must be deducted from next quarter's allotment. (Amendment 6, WFO 18.3.)

● **Cotton Duck**—Direction 1, Order M-91, which impounded cotton duck in excess of 500 yards in the hands of users, has been revoked to restore the goods to normal permitted use.

## Tightened Restrictions

Increased military demands for formaldehyde have resulted in a lower small-order exemption for urea and melamine aldehyde molding compounds—100 lb. a month compared with the previous exemption of 2,000



Are you tying up too much capital in single-purpose machines?

Are you flexible enough to adapt quickly to changing conditions?

Is your fixed overhead on machine tools too high?

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with flexible, low-cost

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War production experience proves you can maintain volume and quality — with big savings . . .

With portable, compact Delta-Milwaukee Machine Tools you can revise production line layouts at will, to get the best sequence of operations for increased man-hour output.

You can modernize obsolete machines by replacing worn units with standard, low-cost Delta components.

And you can build high-production, special-purpose machines —

*Below: An efficient, low-cost tube polishing machine, built by mounting two Delta Abrasive Belt Finishing Machines face to face on one stand. The tube is fed in at an angle and the action of the abrasive belt polisher and feeds the tube.*



**DELTA MILWAUKEE**  
Machine Tools

that can be quickly converted to other uses, when changing conditions warrant—out of regular stock-model Delta elements.

By cutting down your fixed investment, you retain more liquid working capital for other post-war needs . . . and you reduce fixed overhead. Delta cost savings are due to a new conception of tool design and to modern production methods applied to a large volume of standard models—not to short-cuts in quality.

Avoid the unnecessary delay and investment risk of buying costly, cumbersome, inflexible machines . . . with Delta tools. Investigate!

MA-15

**Delta's 76-page Blue Book** provides 140 case histories of valuable war production experience that may suggest similar money-saving peacetime applications in your plant. Also available is a catalog of low-cost Delta-Milwaukee Machine Tools. Request both, using coupon below. **Tear out and mail today!**

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Company.....

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City.....(.....) State.....



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Potash**

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Chemicals

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and Fertilizer Materials  
**Chemicals**

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phate—Glutamic Acid—Mono  
Sodium Glutamate—Potassium  
Chlorate—Silica Gel—Sodium  
Silica-Fluoride—Sulphuric Acid  
—and others.

Drilling for Potash in International's Mine, Carlsbad, New Mexico

## *Healthy, Vigorous Crops.*

nourished by fertilizer that is well-balanced in its potash content to produce high acre yields, have been a major factor in the outstanding performance of the farmer in meeting War Food Administration crop goals during the war. To supply the rapidly growing demand for quality fertilizers, International is producing a complete line of all grades of potash at its mine in New Mexico: Muriate of Potash, Sulphate of Potash, and water-soluble Sulphate of Potash Magnesia. Extensive research is being carried on in International's laboratories to find new ways for agriculture and industry to utilize the rich chemicals in potash, one of America's most important natural resources. *International Minerals & Chemical Corporation, General Offices: 20 N. Wacker Drive, Chicago 6*



# *International*

**MINERALS & CHEMICALS**  
CHEMICALS • PHOSPHATE • POTASH • FERTILIZER



fb. (WPB Order M-300, Schedule 35, as amended.)

● **Antifreeze**—Beginning Jan. 1, antifreeze production will be governed by Order M-300, Schedules 71 (ethyl alcohol), 12 (isopropyl alcohol), and 15 (glycols), and, effective Nov. 21, 1944, by Schedule 72 (methyl alcohol). Allocation of ethyl alcohol will be on a monthly, rather than a quarterly, basis. The small-order exemption for completely denatured and proprietary types of ethyl alcohol will be reduced from 972 gal. a quarter (324 gal. a month) to a monthly maximum of 54 gal.

● **Jute**—WPB has limited the amount of raw jute that may be allocated to a processor from government stockpiles. No processor may accept raw jute from this source if acceptance means that he will have on hand more than nine months' supply of Group I or equivalent grades, or of Block 20 or equivalent grades, or more than four months' supply of raw jute in Group III or equivalent grades. (Order M-70, as amended.)

## Price Control Changes

OPA has established ceiling prices on two types of surplus Army shoes to be sold to civilians as work shoes. Ration stamps will be required. (Order 9, Supplementary Order 94.)

● **Raw Furs and Peltries**—Fifteen types have been given dollar-and-cents ceiling prices in line with those prevailing during the period Oct. 1, 1941, through Apr. 30, 1942. A revision of prices for fur garments is expected to follow soon. (Amendment 2, OPA Regulation 541.)

● **Glassine and Greaseproof Papers**—OPA has provided uniform dollar-and-cents ceiling prices at the manufacturer's level for the basic No. 1 grade of these papers with the usual March, 1942, differentials for other listed grades. This will increase prices for about half the output. (Regulation 567.)

● **"Blitz" Cans and "Jerricans"**—Civilian sales of surplus stocks of these special five-gallon steel containers that have been used by the armed forces for water have been given dollar-and-cents ceilings. (Order 6, Section 11, Supplementary Order 94.)

● **Distilled Spirits and Wine**—When sold under court order, these are subject to the ceiling prices applicable to other sales of distilled spirits and wine. (Amendment 2, Revised Supplementary Order 10; Amendment 18, Regulation 445.)

## Ration Control Changes

War Food Administration has terminated ration controls over corn pickers, the last item remaining on the farm machinery rationed list (BW—Oct. 7'44,p20). (Supplementary Order 1, WFO 14, as amended.)

● **Shoes**—Shoes shipped from the factory after Nov. 30, 1944, which contain no leather except "pig-strip" or "bacon-rind" pigskin used in the uppers will be ration-free. OPA and the industry hope for an annual output of from 12,000,000 to 15,000,000 pairs of these shoes—principally infants', children's, misses', and women's—but OPA cautions that the shoes will not be available for some time. (Amendment 85, Ration Order 17.)



## New Shoes . . . for Christmas!

Ever walk all day in the rain, sleep when you can with your shoes on, for a solid seven days or more? . . . Winter is wet and cold in Northern France and Western Germany. Belgium and Holland have hundreds of square miles of semi-swamp. Wet shoes get stiff, split their seams, lose their soles, are scrap in a month or so.

Northern Italy's mountain passes are partial to snow, with sharp stones underfoot, unhealthy for shoes.

In the Pacific, you step off the LC into water, waist high, keep stepping on sharp coral, coarse sand, jungle muck, rock ridges, with rain an added feature every day, as long as the Japs last. And sometimes the Japs last longer than the shoes.

GI shoes can be a very satisfactory Christmas present to Joes who need

shoes to stay in business. So let's send them shoes . . . and a Merry Christmas, circumstances permitting. And shells, overcoats, ammo belts for .50 calibre machine guns, K and C rations, gas, grenades, and bombs to keep the B-24s busy . . . with the Merry Christmas!

**SENTIMENT** is fine, but it can't stop sniper bullets, starshells, spitting tanks, squareheads and Sons of Heaven. The boys can shove on and settle this war quick, if we keep sending the stuff without stopping, stinting, or sparing. Without stinting the War Bonds, or without sparing ourselves! That's our best sentiment!

This suggestion may sound a little crude, but have you ever heard a battle? Battles are our biggest business this year. Sentiments are good forever!

**PITNEY-BOWES POSTAGE METER COMPANY, STAMFORD, CONN.**

with no business interest in shoes . . . but the originators of Metered Mail, and world's largest manufacturer of postage meters . . . still largely devoted to war production, but beginning again to make postage meters . . . and new jobs for returning servicemen



# PRODUCTION

## Carbides Cash In

Accepted slowly until the war, these durable alloys have established themselves firmly by accelerating war production.

Like all the other manifold products of powder metallurgy that originally found slow acceptance (BW—Oct. 28'44, p74), the hard carbides are winning new friends and firm allegiances everywhere.

• **Production Tripled**—According to the Army Air Forces, carbide cutting tools (that are derived from the soft, impalpable powders of tungsten, tantalum, titanium, carbon, cobalt, and other elements) have "enabled production of three times the number of crankcases and gears for aircraft engines with the same equipment and manpower."

Top AAF officers have little fear of contradiction when they say that we "couldn't produce our present aircraft engines on a production basis without carbide tools. . . . Where usable, carbide tools give two to three times the production of high-speed steel tools with the same equipment and manpower—and require only one-fifth the amount of tool grinding."

• **Saves Manpower**—Army Ordnance reports that "all shell are now machined with carbide tools" with "only one-sixteenth the number of men required to produce a given number of shell as in the World War. . . . Tanks are produced four to five times as fast. . . . Every carbide-tooled machine released one to four men for other employment or for the armed forces."

Navy's experience checks with Army's practically item for item. It more than matched machining speeds on practically the same kind of superhardened alloy steel armor plate that is used in tanks by having "cut machining time of 30-ft. Navy gun turrets from 16 hr. to 3 hr."

• **Reluctant Acceptance**—Up to 1928, and for several years thereafter, the hard carbides (so called to distinguish them from calcium carbide, which reacts with water to produce acetylene gas, and silicon carbide, the abrasive and refractory material which is actually somewhat harder than the hardest "hard" carbide) found only grudging acceptance among tool engineers and production men. They were brittle, unpredictable, almost fantastically expensive.

Sold by the gram at prices which American metalworkers immediately translated into \$500 and more a pound, bits and pieces of "Thor" or "Widia" tungsten carbide that came to this country from Krupp of Germany or from the English firm of A. C. Wickman, Ltd. (which now has a Canadian affiliate of the same name), frequently failed to live up to their European reputations.

• **On the Shelf**—Tungsten carbide had been discovered before the turn of the century by an unknown German chemist who blended tungsten powder with lampblack and found an extremely hard substance after the mixture had undergone the high temperatures of an electric furnace. Since natural diamonds are still harder, and do not possess the same degree of brittleness, the carbide remained pretty much on the laboratory shelf for almost 20 years.

As diamonds for wire-drawing dies became scarce in the Fatherland during the World War, the Osram lamp people put two researchers, Baumhauer and Schroeter, to work on finding a substitute to produce lamp filaments. They came up, after nobody knows how many failures, with "cemented" tungsten carbide, which proved hard enough to scratch sapphire, the second hardest natural substance, yet tough enough if



Hydraulics and electronics team up in a new "hot press" method of pressing, semisintering, and sintering large carbide parts—such as nosing dies for 105-mm. artillery shells and broaching rings for finishing silver-lined aircraft bearings—in one operation. Pressure is applied hydraulically; heat is induced electronically.

## SECOND OF TWO

This is the second of two reports on powder metallurgy. The first sought to sketch the broad outlines of the art, its major exponents, and some of its many present applications to metal and electrical products, and to take a tentative dip into postwar applications (BW—Oct. 28'44, p74).

The second discusses the hard carbides of tungsten, tantalum, titanium, and boron, goes briefly into their background and development, and attempts to give some idea of their genuine importance to industry—past, present, and future.

handled carefully to substitute for diamonds in drawing the toughest metal of them all, tungsten, into wire.

• **Cemented With Cobalt**—Briefly, what they accomplished was the cementing of tiny particles of tungsten carbide into a compact mass by blending them with comparatively small amounts of cobalt powder (the cementing metal), pressing them into desired shape, and sintering the whole by the now familiar methods of powder metallurgy.

Meanwhile the armament house of Krupp also ran short of diamonds which it was beginning to use in some quantity for the final precision finishing of hardened gun parts and other military components. Its researchers took up the work on cemented tungsten carbide where Osram left off but, fortunately for the Allies, were unable to accomplish much with the material until several years after the end of the World War.

• **Americans Incredulous**—By 1928 the researchers had developed both the carbide and the special techniques for utilizing it to a point where Krupp was machining cast iron at speeds and feeds which caused American manufacturers to raise their eyebrows in unbelief. Machining steel, hardened or unhardened, was still beyond the Germans because of "cratering," or chip wear, on the best carbide tools they could produce.

In that year the General Electric Co., full of faith in the ultimate importance of the product, took a license from Krupp A. G. under its U. S. patents, adopted the trademark of "Carboloy" for its new product, and set up the Carboloy Co., Detroit, to "develop, manufacture, and distribute cemented carbide . . . and to help train American industry in its use."

• **Metalworking Revolution**—Now, when Carboloy reports that "extensive re-

**Alike as four peas**



**...till you read these!**

The name he wears around his neck is about the only difference between G.I. Joe's wardrobe and G.I. John's.

But when those "dog tags" are finally turned in! Then, some seven million men will put their battle-worn khakis and blues aside . . . and exercise a privilege they've looked forward to so long. A shopping trip of picking out ties and suits and shirts!

For that big day, America's textile mills will weave textures and mix colors

. . . create the infinite variety of well-styled, skilfully woven fabrics that help make it possible for Joe and John and everybody to dress as they please.

They'll introduce a multitude of new materials, too. For the textile industry has developed, in looming for war, fibres and finishes to add good looks and longer life not only to clothes, but countless other fabrics for every use.

These textiles-to-be, like those today, will need chemicals. Alkalies for scour-

ing and mercerizing, new textile chemicals for processing and finishing. Chemicals by the hundreds of carloads speeding from Wyandotte Chemicals Corporation to meet a nation's needs.



**Wyandotte**  
REG. U. S. PAT. OFF

OFFICES IN PRINCIPAL CITIES

**WYANDOTTE CHEMICALS CORPORATION—WYANDOTTE, MICHIGAN**

Alkalies • Chlorine • Calcium Carbonate • Calcium Chloride • Dry Ice • Other Basic and Intermediate Organic and Inorganic Chemicals • Specialized Cleaning Materials for Business, Industry and the Home





## Great day!

Today this man reached a new high in the number of parts he machined. For today a 'Budgit' Electric Hoist lifted the work in and out of his machine.

He thrilled to the greater accomplishment it afforded him! His employer rejoiced that he worked without danger of rupture, strained back, or over-fatigue!

'Budgit' Hoists with their light weight; trouble-proof mechanism; and simple, effective operation have given management greater production at lower operating expense. They do away with man-power shortages by permitting the employment of women and older men in load-handling jobs that were previously open only to strong young men.

Ask each of your foremen to check his department for places where 'Budgit' Hoists could be used to speed production, save operating time, and lower your operating costs.

'Budgit' Hoists are portable, electric hoists with lifting capacities of 250, 500, 1000, and 2000 lbs. They are priced from \$119 up. Hang them up, plug in, use! For information, write for Bulletin No. 356.



**'BUDGIT'**  
*Hoists*

**MANNING, MAXWELL & MOORE, INC.**  
MUSKEGON, MICHIGAN

Builders of 'Show-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcraft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

search has not only greatly improved the characteristics of the original material, but has resulted in the development of many new cemented carbides to supplement the one type originally available," it hits a new high in understatement. The carbides have been revolutionized, and with them much of the art of metalworking.

In 1930, the Fansteel Metallurgical Corp., North Chicago, developed the "first successful steel-cutting carbide." It added tantalum carbide to the original cemented carbide formula, producing tantalum-tungsten carbide with a self-lubricating quality that minimizes cratering. Its product was named Vascoloy (and later on, Vascoloy-Ramet) to differentiate it from Carboloy.

• **Subsidiary Created**—Because the business of Fansteel is primarily that of producing tantalum, tungsten, molybdenum, and other more or less rare metals in a variety of forms and shapes, it set up a two-thirds-owned subsidiary, the Vascoloy-Ramet Corp., North Chicago, to do the actual pressing, sintering, fabricating, and marketing of the carbide line.

Research followed upon research. Carboloy vied with Vascoloy. Fortunately for the war effort, when tantalum became short for a time, columbium carbide and titanium carbide were found to replace some tantalum carbide in carbides of steel-cutting grades. Nickel and iron were found to replace cobalt as cementing metals in certain other grades.

• **Special Grades**—Upshot is that within limits, of course, the physical characteristics of the carbides for cutting or working various metals and alloys can be varied all over the lot by changing the kind and proportion of the components. It seems that where large quantities are required, present practice is to develop pretty much a special grade for a particular application.

Bulk of the carbide tool business, which may have topped \$400,000,000 during the tooling-up year of 1942, is done in an almost unlimited variety of standard grades which cover such a wide range of standard uses that purchasers large and small can almost always select one that matches or closely approximates what is wanted.

Standardization, volume production, and a nudge from the U. S. Dept. of Justice (BW—Apr. 25 '42, p20) have combined to bring pound prices of a typical tungsten carbide (it is still sold by the gram, despite Thurman Arnold's suggestion) from \$453 in 1929 to \$45 in 1941, and to about \$16 last year and this. Wartime production, which has naturally tapered off by an undisclosed amount, ran at about 40 times what it was just before the holocaust.



The carbide "nib" for a die to draw sheet steel into tanks for storing compressed gas weighs more than 100 lb. and is about 13 in. in diameter.

• **Field Widened**—Carboloy has continued and expanded its original position of leadership in this country. By reason of its success and that of Vascoloy-Ramet, other companies have entered the hard carbide field, among them such leaders as Kennametal, Inc., Latrobe, Pa.; Firth-Sterling Steel Co., McKeesport, Pa.; Metal Carbides Corp., Youngstown, Ohio; Tungsten Electric Corp., Cleveland; Jessop Steel Co., Washington, Pa.

Metal powders for their products, which they press, sinter, grind, and lap into finished tools of manifold kinds and sizes, come in large measure from powder specialists previously listed (BW—Oct. 28 '44, p74). Lampblack, the principal source of the carbon part of most hard carbide, is supplied by Columbian Carbon Co., New York; Harshaw Chemical Co., Cleveland; Monsanto Chemical Co., Everett, Mass.; Wishnick-Tumpeier, Inc., New York; and others. Presses, sintering furnaces, and all the other intricate equipment for putting together the "hardest metal made by man" come from substantially the same manufacturers that supply the powder metal industry generally.

• **Carbide Specialists**—Although comparatively few companies start with the basic raw materials and carry them through to completed tools, dozens of firms have undertaken specialties that utilize the hard carbides not only as cutters but as resistors to abrasion and other kinds of wear and tear. Usual practice is for them to buy nibs and blanks preformed to rough dimension, mount or otherwise fabricate them, and bring them to precision tolerances.

Lincoln Park Industries, Inc., Lincoln Park, Mich., for instance, buys Carboloy of suitable grades and mounts

# Mr. Friendly and the sad little Factory...

President Hawkins was worried . . .

Some factories smoked big black clouds . . . but his just puffed a few anemic wisps.

Some factories hummed . . . but his just seemed to groan, "Ho, hum, production is bum. Oh, me, I don't feel well."

It was like that all day long.

President Hawkins' nerves stood out like antlers on either side of his head when he heard a gentle cough.

He set a new world's record for the sitting high jump . . . and then he screamed, "Who the (unprintable) are you! And what in the (unprintable, unprintable, unprintable) do you want!"

"I'm Mr. Friendly, the American Mutual man," said Mr. Friendly quickly.

"I'm a production doctor," he continued, "and I think I can help you get your plant humming again with American Mutual's new Group Disability Plan which takes away workers' worries by paying them if and when they are laid up from sickness or 'off the job' accidents, and pays hospital and surgical expenses even for the whole family—and, naturally, with these worries eliminated, spirit and morale will go up and so will production, and what's more, you can enjoy the opportunity of savings through American Mutual dividends which have never been less than 20% . . ."

But that was enough for President Hawkins . . . as quick as you can say "Mr. Friendly" he asked for the details . . . and was on his way to announce the new plan to the factory.

Well, Sir, the change was miraculous . . . right then and there the factory started pouring out huge black clouds of smoke. And talk about humming! For miles around you could hear it sing, "Speed, speed, that's our creed . . . more 'n' more to win the war . . . without a worry, watch us hurry!"



**Your helping hand  
when trouble comes!**



HOW TO REDUCE ACCIDENTS . . . how to effect rehabilitation of injured workmen . . . how to prevent industrial disease . . . how to increase loyalty, satisfaction, better work! You put a mighty powerhouse to work on these when American Mutual's Group Disability Plan goes into effect in your plant. What's more, you enjoy the opportunity of American Mutual dividends, which have never been less than 20%! Send for your free copy of the plan. No obligation. Write Dept. B-10, American Mutual Liability Insurance Company, 142 Berkeley Street, Boston 16, Massachusetts.

**AMERICAN MUTUAL** the first American liability insurance company

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# Aide-de-Camp to a "CAT CRACKER"



Buell cyclones as adapted  
for oil catalyst recovery in  
34 catalytic cracking units

## Buell Dust Recovery Systems help make 100-octane gas...

"CAT CRACKER" is the oil industry's nickname for the new catalytic cracking processes now producing high-octane gas—processes calling for the highest efficiency in the recovery of catalyst dust. It is significant that so many leading oil companies have chosen Buell (van Tongeren) Dust Recovery Systems for this important work.

The remarkable natural and synthetic catalysts used are both expensive and abrasive. Buell equipment (incorporating the exclusive van Tongeren "shave-off") pays for itself many times over in the recovery of the costly, finely divided catalyst. And Buell's large-diameter, extra-heavy metal cyclones eliminate clogging and reduce abrasive wear—for long life and continuous performance.

Here, as in so many other fields, Buell leadership has again demonstrated its ability to solve difficult dust recovery problems.

*Maybe Buell can help your business...  
Write for Bulletin G-842, describing Buell equipment  
and its applications in many industries*

**BUELL ENGINEERING COMPANY, INC.**  
60 Wall Tower, New York 5, N.Y.  
*Sales Representatives in Principal Cities*



them on the cutting edges of thread taps which hold their accuracy and outwear alloy steel ones many times over. Having been one of the pioneers in carbide gages of the plug, snap, and thread types, Lincoln Park has just recently brought out carbide precision gage blocks (accurate to 0.000004 in. and to be used mainly as facing blocks for a stack of steel ones), which promise to outwear standard steel blocks "up to 200 times as long."

• **Rotary Files Added**—By acquiring Carbur, Inc., of the same city, Lincoln Park has added a line of tiny rotary files whose long-lasting cutting flutes are ground and lapped out of solid carbide. Early this year the M. A. Ford Mfg. Co. brought out a similar line of rotary files in seven shapes and 20 sizes that are described as the "fifty to one" carbide cutters "for faster cutting in harder metals."

Super Tool Co., Detroit, brought out a line of carbide-tipped end mills and face mills last spring. Wendt-Sonis Co., Hannibal, Mo., reports the development of a shell milling cutter for machining heat-treated nickel-chrome-moly steel at exceptionally high speeds. One of its carbide-tipped drills for Bakelite runs 2,500 pieces between sharpenings, as compared with 60 pieces for untipped high-speed-steel drills.

• **Faces for Contacts**—Big-time precision measuring instrument makers such as Pratt & Whitney, West Hartford, Conn., and the Sheffield Corp., Dayton, Ohio, face the contact anvils of many of their most precise devices with carbides to multiply wear resistance and insure continuing accuracy in measurement.

Kennametal, which at one time mostly confined itself to carbide-tipped cutting bits for machine tools, brought out a line of Kennametal lathe files this year to remove any burrs left by the bits without reducing tool speeds (BW—Jan. 15 '44, p. 75). Its whole line of specialties now includes step-milling cutters, tipped with titanium-tungsten carbide, long-wearing inserts for bench and machine vises, plus virtually wearless pawls and ratchets for all sorts of precision mechanisms.

• **Hot Press Method**—Metal Carbides reports the achievement of a "process" of manufacturing extremely large tungsten-carbide articles by the hot press method which is different from the conventional sintering method. . . . This process makes possible the fabrication of tungsten-carbide rolls weighing several hundred pounds which are used on high-speed 4-high cold-rolling mills to roll mirror finish steel strip which is subsequently stamped into numerous items such as razor blades, shim stock, etc. Also, large sheet steel dies weigh-





## "Throw Him Out!"

**SOME JUDGE, eh? No lawyers in his court!**

But he was right, in those days...and right here in America! Lawyers were something new, then. Legal histories tell us that legislatures sniffed and snorted and passed laws barring paid attorneys from the courts!

But the public liked lawyers; they were a help to the people. So today, the profession of law is a respected one in every court in the Nation.

It usually happens that way when the people get a chance to judge a new idea. The Comics, too, were a new, a startling idea half a century ago.

Today, their picture story technique is recognized and used as a basic educational force...from the training of fighter pilots to the teaching of the Bible.

Such beloved and popular personalities as "Jiggs and Maggie," "The Katzenjammer Kids," "Buz Sawyer," "Judge Puffie," "Little Annie Rooney," "Toots and Casper," and "Blondie and Dagwood," with their human humor, portray life as so many of us know it. They

rivet the attention of the more than 20,000,000 adults and young people who read Puck-The Comic Weekly... every week!

48 leading manufacturers have benefited from this "riveted attention" by millions of readers to every page of Puck-The Comic Weekly. These canny businessmen advertise in Puck and most of them have done so consistently year after year.

Because only one advertisement is published on a page, these sales-conscious advertisers get preferred position in over 6,500,000 homes in the hearts of the great industrial markets of America.

Distributed with 15 great Sunday newspapers from coast to coast, Puck-The Comic Weekly is read by four out of five adults who buy these newspapers, as well as millions of younger readers.

You can get stimulating information about how this popular publication can build a bigger post-war market for your products by just calling or writing Puck-The Comic Weekly, 959 Eighth Avenue, New York 19, N. Y., or Hearst Building, Chicago 6, Ill.

### *The Advertisers*

Following are the names of the manufacturers whose advertising has appeared in Puck during the last year. The majority have run consistent schedules—year after year

Bauer & Black Ltd.  
Bendix Aviation Corporation  
Walter J. Black, Inc.  
Bristol-Myers Company  
Chesebrough Mfg. Co. Consolidated  
Chrysler Corporation  
The Coca-Cola Company  
Colgate-Palmolive-Peet Company  
Corning Glass Works  
The Cudahy Packing Co.  
Derby Foods, Inc.  
Devco & Reynolds Co., Inc.  
Doubleday, Doran & Co., Inc.  
Doughnut Corp. of America  
Eversharp, Inc.  
Frank H. Fleer Corp.  
F. W. Fitch Company  
General Electric Co.  
General Mills, Inc.  
A. C. Gilbert Co.  
Gillette Safety Razor Co.  
The Grove Laboratories, Inc.  
Geo. A. Harmel & Company  
International Cellucotton Products Co.  
The Andrew Jergens Company  
"The 'Junket' Folks"  
(Chr. Hansen's Laboratory, Inc.)  
Lambert Pharmacal Company  
Lamont, Corliss & Company  
Thomas Leeming & Co., Inc.  
Lever Brothers Company  
The Lionel Corporation  
Maybelline Company  
The Mennen Company  
Pepsi-Cola Company  
The Pepsodent Co.  
Pillsbury Flour Mills Co.  
Procter & Gamble Co.  
The Quaker Oats Co.  
Ralston Purina Co.  
R. J. Reynolds Tobacco Co.  
W. A. Sheaffer Pen Co.  
Standard Brands, Inc.  
Twentieth Century Fox Film Corp.  
Unicorn Press  
U. S. Army Recruiting Service  
Van Camp's, Inc.  
Wilson Chemical Co., Inc.



VICTORY BEGINS ON PAPER

Away up front, where there's nobody ahead of him but the enemy, the combat infantryman needs weapons that are effective and quick on the draw, like the .45 caliber submachine gun.

These modern weapons are first designed . . . on paper. Not only are they designed, but wrapped, routed, and shipped with the help of paper. In fact, paper is needed in war-time in such vast quantities that supplies for civilian use are definitely low.

Hamilton Papers, those "good papers for good business," have gone to war, too, and paper buyers are having difficulty in obtaining their full requirements. Hamilton merchants are, however, making every effort to keep supplies as near to normal as possible.

W. C. Hamilton & Sons, Miquon, Montgomery County, Pennsylvania. Offices in Chicago, New York, and San Francisco.

# HAMILTON PAPERS



ing 50 to 100 lb. used at the present time to deep draw cartridge cases and other ordnance items."

Such massive units bear out a cherished contention of Carboloy that the metalworking industry must stop "considering carbides as something you tip something with." As one of its spokesmen says, "that's quite a revolution when you consider that the reason carbides actually became successful in this country was that Carboloy thought of the idea of making tools by tipping on a little piece instead of making the complete tool out of carbides as the Germans had tried to do before."

• **Carboloy's List**—No one knows who pioneered exactly what in the carbides, but Carboloy is credited with having a large part in the following ingenious developments: tips not only for tool bits but also for metal scribes; hard-faced oil well drills; diamonds mounted in carbide settings for core drills used in geological sampling and for grinding wheel dressers; tipped centers for lathes and grinders; doctor blades to hold work precisely in centerless grinders; carbide punching and forming dies; wear buttons for core boxes; carbide tools for machining porcelain, glass, plastics, and quartz; smooth-running fishpole guides. The list is seemingly endless.

• **Boron Blend Is Harder**—Hard as the regular run of hard carbides is, there is a still harder one—boron carbide, or "Norbide," as it has come to be known through the promotional efforts of its developer, the Norton Co., Worcester, Mass. Because the boron in its composition is introduced in combined form as glasslike, anhydrous boric acid flake and not as a metal powder, certain purists among powder metallurgists regard the end material as a ceramic quite beyond the pale of their art.

The flake, however, is carefully blended with finely powdered petroleum coke and put through the intense heat of an electric furnace which removes the oxygen atoms in the acid molecule, and replaces them deftly with carbon atoms very much after the manner of the tungsten carbide reaction. Unlike the latter, boron carbide is self-bonding and requires no cementing metal to hold it in usable shapes.

• **Inherently Brittle**—Refined, powdered, and molded under tons of pressure and thousands of degrees of heat the material becomes a whitish, clear-looking, one-phase crystalline body of accurate dimensions. It can be polished to a mirror finish. Though it possesses the type of hardness known as "impact abrasion resistance" in the higher degree, it is inherently somewhat brittle. There is little chance that it will be developed to compete with the other

## METAL POWDERS

Several important exponents of powder metallurgy should be added to those that were included in the preceding report on the far-flung art (BW—Oct. 28 '44, p74):

**American Metal Co., Ltd.**, New York, as a large producer of copper-powder as well as of the powders of lead and silver.

**George S. Mephan Co.**, East St. Louis, Ill., specialists in powder iron.

**National Carbon Co.**, Cleveland, as an outstanding producer of carbon-graphite brushes for motors, generators, and other electrical applications.

**Powdered Metal Products Corp.**, Chicago, a newcomer in the fabrication of numerous restricted military parts, which plans to "be something big in the custom molding of powder metal parts" with the coming of peace.

**Powder Metal & Alloy Co.**, New York, veteran producer of powder iron.

**Reynolds Metals Co.**, Richmond, Va., important producer of aluminum powders, pure and alloyed.

**Metals Refining Co.**, Hammond, Ind., originally listed as working "solely in iron" powders, but actually one of the large factors in powder copper and lead as well.

carbides as the tips of metal cutting tools.

Where boron carbide already competes in the contact tips, or anvils, of precision gages and measuring instruments, not only for its superior resistance to wear but also for its quality of not charging electrically, hence its virtual inability to pick up and hold lint, dust, or metal particles to the detriment of the next piece to be gaged.

• **In Contact Points**—New England Carbide Tool Co., Cambridge, Mass., is rounding out its line of diamond gage points and tungsten-carbide cutting tools, collets, form cutters, burnishing nests, lathe centers, punches, and dies with boron-carbide contact points "for every make and model of dial indicator, old or new." It is developing a line of wear-resistant ring and plug gages, and will undertake surface plates and contact points for almost any purpose on special order.

Norton, which furnishes the blanks for such work to all comers in the form of solid or hollow cylinders to be cut

with diamond abrasive wheels and finished to precise dimension with diamond powder, ships them in the rough as they come from their molds. It has all it can do to supply the demand for rough blanks, Norbide abrasive powders (which are produced in the same range of screen sizes as diamond powders for less than 1% of the cost of the natural material), Norbide metallogical powder for deoxidizing and alloying steels, and Norbide pressure blast nozzles for use in sand blasting. In the latter application, boron carbide outlasts and outperforms all other known materials.

## Direct Drive

**Pennsylvania R. R. tests a steam turbine locomotive, with power applied directly to the two center driving wheels.**

Using a direct drive steam turbine in place of conventional cylinders, pistons, and driving rods, the first locomotive of its type built in this country for regular line service is being tested by the Pennsylvania R. R.

• **More Even Flow?**—Proponents of the steam turbines expect them to supply more uniform flow of power to the driving wheels more economically than the present cylinders and reciprocating pistons which they eliminate.

There are two turbines on the S-2, as the new type is designated. The main

(forward drive) turbine is mounted on the right side of the locomotive, and power is applied directly to two center pairs of driving wheels and transmitted to two additional pairs of drivers by connecting rods.

• **High Speed Possible**—This turbine is approximately 3 ft. 9 in. in diameter and develops 6,900 hp., sufficient to pull a full-length passenger train at 100 m.p.h. and a high-class freight train at somewhat more modest speeds. A smaller turbine, designed to move the locomotive backward at speeds up to 22 m.p.h., is mounted on the left side and is brought into operation by engaging a clutch.

The locomotive is said to be simple to operate. Both forward and reverse movements, at all speeds, are controlled by a single lever, actuating specially designed pneumatic control apparatus. Automatic devices make incorrect handling of the mechanism virtually impossible.

• **Conventional Boiler**—Like almost any turbine, its rotor is turned over by the expansion of jets of fairly high-pressure steam against more than 1,000 chromium steel vanes, some of which are less than 1 in. long. Steam travels through the entire battery of turbine blades, expending all of its energy except 15 p.s.i. which produces a non-pulsating draft through the coal-burning firebox and boiler. The boiler is of the conventional type, carrying 310 lb. of steam pressure.

Speed is controlled through heat-treated alloy steel reducing gears, into which the turbine shaft feeds its power.

The gears operate continuously in an oil bath and mesh with so little friction that 97% of the turbine's power is said to reach the driving wheels. The engine and tender weigh nearly 1,000,000 lb. and are 123 ft. long.

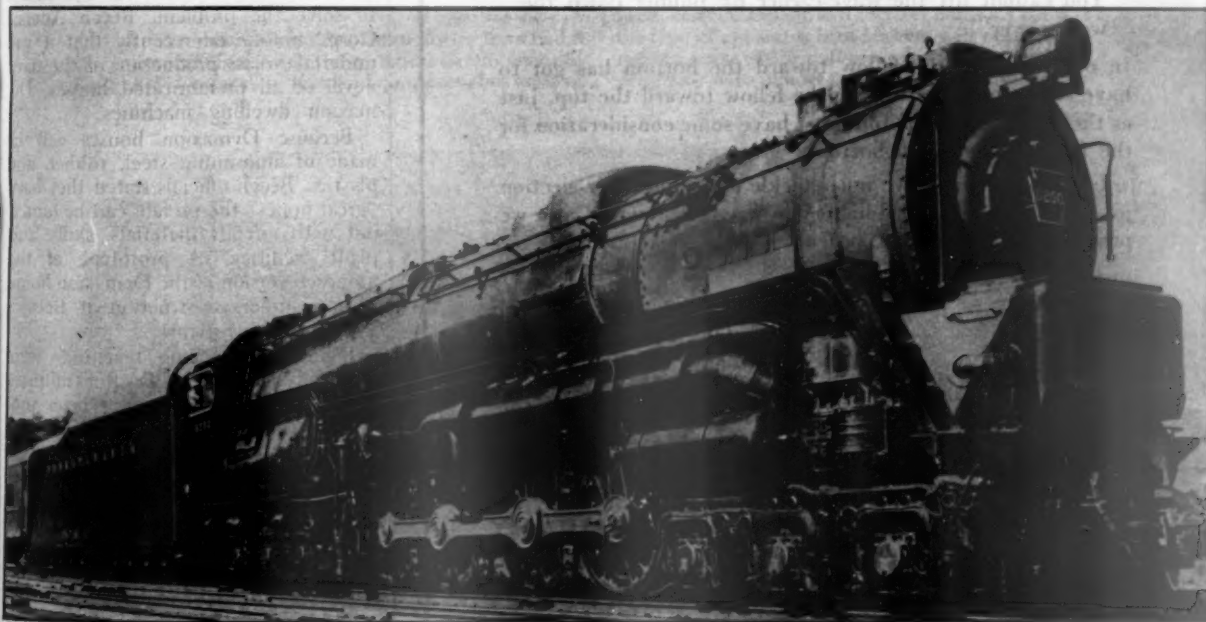
• **Other Types Tested**—The locomotive was designed and constructed by the Baldwin Locomotive Works and the Westinghouse Electric & Mfg. Co. in collaboration with the Pennsylvania which recently put into operation the first of 25 of its multiple cylinder freight locomotives (BW—Sep. 23 '44, p. 21). Experimentation with other types is continuing.

## Magnesium Wings

**Navy's experiments with light-metal alloys are reported successful. Engineer forecasts all-magnesium planes.**

Disclosure that Navy advanced training planes (SMJ-2) have been flying with wings fabricated entirely from magnesium alloys created a mild sensation at this week's annual meeting of the American Assn. of Mechanical Engineers in New York.

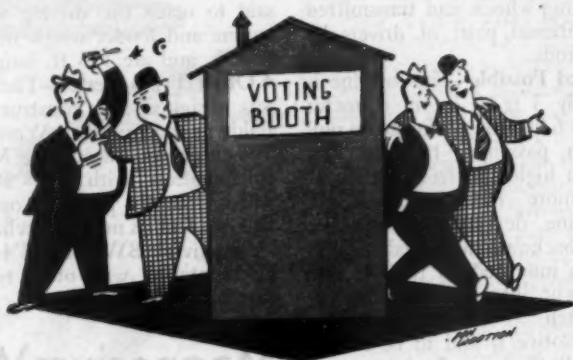
• **Flyers Approve**—The Navy installed 30 sets of these all-magnesium wings early last year, it was reported by J. C. Mathes of Dow Chemical Co. He said the experiment had proved successful, and that some Navy fliers seemed to prefer the lighter, experimental wings



If the new turbine-drive locomotive revolutionizes rail-roading, a familiar sound will disappear from the Ameri-

can scene because its steady draft eliminates the choo-choo exhausts that inspire the song writers and small fry.





## NOW THAT ELECTION IS OVER

All right—we've elected a president—BUT

- we've still got to win the war
- we've still got to win the peace
- we've still got to get our boys back home
- we've still got to find jobs for them
- we've still got to terminate war contracts
- we've still got to avoid inflation

The fact is that the same jobs remain to be done. They are bigger than candidates or presidents or political parties. More than ever before, they call for CO-OPERATION—the kind of co-operation suggested in a recent talk by J. Hudson Huffard, Vice President of Kiwanis International when he said,

"You cannot strengthen the weak by weakening the strong. You cannot help small men by tearing down big men. You cannot help the poor by destroying the rich. You cannot lift the wage-earner by pulling down the wage-payer."

In other words—the fellow toward the bottom has got to have some consideration for the fellow toward the top, just as the man toward the top must have some consideration for the fellow toward the bottom.

Isn't this the way we must tackle all of our after-election jobs? We've made world history in war production. Can't we produce even better, for peace?

*Geo. P. Trundle Jr.*  
President

1919-1944

## THE TRUNDLE ENGINEERING COMPANY

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**25 Years OF MANAGEMENT ENGINEERING EXPERIENCE**

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NEW YORK

Graybar Bldg., 420 Lexington Ave.

to the aluminum wings that are standard equipment.

The magnesium alloy (Dowmetal J-1H) used as skin of the magnesium wing varies in thickness from 0.025 in. to 0.08 in. The magnesium skin is 20% thicker, but the complete wing is 17% lighter than an aluminum wing for the same type plane. Extrusions used in structural members are from another alloy (Dowmetal O-1HTA).

• **Greater Use Foreseen**—Advent of the all-magnesium plane, Mathes predicted, may be expected in "the very near future." As recently as two years ago, Mathes and many other aircraft engineers had considered the use of magnesium alloys in all structural parts of aircraft as desirable, but impractical.

About half a ton of magnesium, mostly in the form of castings, goes into the average American fighter plane, but the wholesale use of magnesium structural members represents a new development.

• **Greater Pay Load**—Because magnesium is a third lighter than aluminum, Mathes said commercial planes of the future would be able to add "several hundred pounds" to their pay loads with no additional power. Some airlines, he said, figure that every unnecessary pound of weight in plane construction costs them \$100 a year.

## TO BUILD NOVEL PREFABS

Airplane companies, greatly expanded by war production, have been casting around for ways to use extra capacity when the war is over. As one means to solve the problem, Beech Aircraft Corp. announced recently that it will undertake mass production of the most novel of all prefabricated houses, Dymaxion dwelling machines.

Because Dymaxion houses will be made of aluminum, steel, rubber, and plastics, Beech officials stated they have "great hopes" the prefabs can be turned out with aircraft materials, skills, and plant facilities. A prototype of the proposed version of the Dymaxion house is now under construction at Beech's Wichita (Kan.) plant.

Dymaxion dwelling machines were invented in 1928 by R. Buckminster Fuller, but they have never been produced commercially. Hexagonal in shape, the dwelling machines resemble a merry-go-round, being suspended above the ground on a steel mast or core. Within the mast is contained all the machinery for a modern house—elevator, heating, lighting, air conditioning, dishwasher, and laundry.

The word Dymaxion was especially coined for Fuller by a friend to fit the ideas developed by his "four-syllable personality."



## Super-FM Soundproofs the Air

● THUNDERSTORMS charge the atmosphere with static . . . man-made static may also cause interference on the standard broadcast waves . . . but listeners to FM (Frequency Modulation) hear each musical note or spoken word as clearly as though in a sound-proof auditorium. Using very high frequencies—tiny wavelengths—FM brings perfection into radio reception under all atmospheric conditions.

For many years, RCA Laboratories have had a constant interest in the technical development of FM. Research in this field continues, but most of

it is related to the war effort and is of a military nature . . . Prior to the war RCA manufactured and sold FM broadcast transmitters. After the war RCA will manufacture and sell a complete line of FM transmitters as well as high-quality super-FM receivers, utilizing a new type of circuit.

When peace comes RCA will use its background of experience and engineering facilities in the broadcast transmitter and receiver fields, to build the type of apparatus broadcasters will need and receiving sets which will reproduce all broadcast programs with utmost realism and tonal quality.



# RADIO CORPORATION OF AMERICA

RCA LABORATORIES • PRINCETON • NEW JERSEY

**RCA**  
leads the way in  
radio—television—  
phonographs—records—  
tubes—electronics



Listen to RCA's "The Music America Loves Best"—Sunday, 4:30 P.M., E.W.T., over the NBC Network ★ BUY WAR BONDS EVERY PAY DAY ★

# NEW PRODUCTS

## Sandless Glass

Phosphorus pentoxide, a white powder, replaces sand in the traditional glass formula of sand, lime, and soda



to produce Hydrofluoric-Acid-Resistant Glass, new development of the American Optical Co., Southbridge, Mass. Although the pentoxide reacts with water with almost explosive violence, the glass made therewith is said to be "less soluble in water than ordinary glass. . . . As its melting and working properties are about the same as ordinary glass, it can be manufactured in a regular glass factory." It can be "cast or drawn into sheets, or blown into bottles and other shapes . . . ground and polished, tempered and subjected to other processes involved in glass technology."

To visualize the acid resistance of the glass, hydrofluoric acid was poured into two test tubes at 12 o'clock (above), the lefthand tube having been blown of the new material, the righthand one of sand glass. As evidenced by a slight "frosting," the latter was attacked al-



most immediately. Two hours later it had been eaten through to a point where the acid was dripping out its bottom while the pentoxide glass was unfrosted and unharmed.

First applications are in laboratory glassware. Potential uses include shipping containers for hydrofluoric acid used industrially for metal pickling, glass etching, textile processing, and as

a catalyst in petroleum refining and rubber synthesis; acidproof lenses for safety goggles and helmets; window panes for laboratories and certain factories; glass gages for observing the action of acids in metal reaction vessels.

## THINGS TO COME

Helicopters and technically trained geologists will probably never replace burros and prospectors of the desert rat type in the affections of western thriller fans, but the more modern combination shows promise of discovering more deposits of copper, gold, and other minerals in the postwar future. For one thing a flying windmill will be able to range farther from water in the desert places of the world. For another it can hover in the air over potential ore bodies for visual and photographic inspection prior to landing for assay samples.

At least one mining engineer is already aware that certain mineralized areas viewed from the air have a distinct reddish tinge due to the presence of iron oxide and that such stains are often too faint and too general to be recognized close at hand on the ground. He is looking forward to the day when he can go forth equipped with a helicopter and one of the still secret aerial color cameras developed for military purposes. He won't say where they are, but he wants to make systematic studies of certain areas too remote for burros and desert rats.

Don't be surprised or disconcerted if the handles of the tools for your postwar garden, or your foundry shovels for that matter, are made of plastic-laminated wood of indeterminate species instead of the straight-grained and exceedingly scarce white ash to which you have been accustomed. The development will have to wait until electronic equipment necessary for processing can be relieved from present wartime duties. When they arrive the handles will possess a new freedom from warpage plus increased strength. It seems that the grain of all the plies in such a handle will be at right angles to the tool load, giving the effect of a plurality of beams.

## Visual Sales Album

Experience gained by Acme Visible Records, Inc., 122 S. Michigan Ave., Chicago 3, in the manufacture of card pockets for its visible filing systems underlies its new "Photodex" Photograph Album. Designed for visual sales presentations and bound in genuine leather, the 11x15x2-in. volume contains 50 double-sided pockets with a capacity up to 100 8x10-in. photographic prints or 200 5x7-in. prints or any combination of the two sizes.

Since all photographs are said to be held in place "securely without the use



of art corners, stickers, or adhesive of any kind," they may be "moved, changed, or replaced instantly to permit the insertion of new photos yet still maintain any desired sequence or filing arrangements." All prints may be visibly indexed, with such indexing protected by transparent plastic.

## Safety Jacket

Joseph's coat of many colors seems to have possessed considerably less visibility than the new Ipcos Safety Jacket developed by the Industrial Products Co., 2816 N. 4th St., Philadelphia 33, for the protection of night watchmen, track workers, helpers at open manholes, or even motorists who must sometimes change tires at night on unlighted roads.

The jacket is really a sleeveless vest of sturdy, washable 10-oz. canvas with a large black and white checkerboard pattern woven right in. Designed to be worn over regular clothing, it is said to offer "high visibility day and night" and to mark the wearer distinctly "no matter at what point or under what conditions he is operating."

## Hot Spray System

Wartime objectives of the new "Thermotite" Hot Spray System, developed by the Sherwin-Williams Co., Cleveland 1, and its associated companies, are: (1) to reduce the number of coatings of "dope" required to shrink



# PEACE PLAN!



Our sons are fighting to free the world from ignorance, intolerance and want . . .

While some 6,000,000 of our people are wholly illiterate, and the majority of Americans have less than a completed high school education.

While there were more than 3,000 strikes during the last year, some of the bloodiest of which were based upon intolerance.

While more than one-third of this nation's dwelling units are still without flush toilets or any bathing facilities whatever. Ignorance, intolerance and want!

America will soon have the chance to help write a peace plan for the rest of the world — and that plan can begin here at home. For our country's greatest immediate contribution to world reconstruction and peace would be to make ourselves lastingly strong, with jobs enough for all.

Today, the engineers of the machine tool industry can greatly help the men of government and of industry to write that plan . . . to prepare now for the reconversion of our tremendous wealth of resources, skills and machinery to all-out production for a better America! One of these engineers is a Bryant man, and we invite you to call upon him now.

BRYANT

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SPRINGFIELD  
VERMONT, U.S.A.

# THE MASTER WHEEL

is the world's best-known Industrial Brush

**MASTER WHEELS**  
are made *Only* by **OSBORN**

**W**HEN you go where the crowds go you'll usually find a better product—whether it's a new movie or a restaurant; whether you're buying a pack of cigarettes, a locomotive, or a power brush.

There's only one reason for consistently undisputed leadership and that's consistently proven superiority.

When you're buying brushes it will pay you to remember that the Master Wheel, made by Osborn, is the world's largest-selling, most used and best-known power brush.

The Master Wheel is only one of a complete line of *better* brushes, all made by Osborn . . . specialized brushes that cut, deburr, clean, polish, finish . . . industrial "tools" that can help you produce a better product in less time, at less cost.

Now is the time to consult an Osborn Field Engineer about the improvements Osborn brushes can contribute to your new products. No obligation. Ask us to call.

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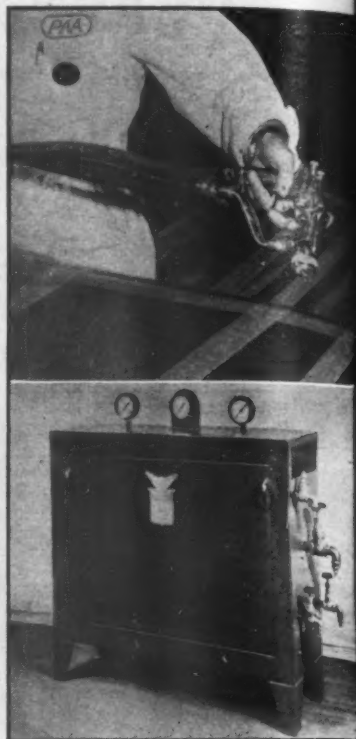
Cleveland, Ohio

**Osborn Brushes**

WORLD'S LARGEST MANUFACTURER OF BRUSHES FOR INDUSTRY

stiffen, and protect airplane fabric stabilizer surfaces, glider wings, whatever; (2) to minimize or even eliminate the use of expensive solvents normally needed to thin dope from its molasses-like consistency for spraying.

Peacetime objectives will almost undoubtedly be expanded to include the finishing of metal products such as refrigerators, automobiles, and bus-



machines with fewer coats of lacquer made less costly by the reduction of solvent content.

Business parts of the system comprise a spray gun (top) and an "applicator" (bottom). Three hose lines connect the two to carry compressed air, heated dope, and any surplus unsprayed dope that must be returned for automatic reheating. Mounted in or on the applicator cabinet are: (1) a standard pressure supply tank to hold dope; (2) a Thermotite unit consisting of a heated dope reservoir heated by steam coils and a circulating pump driven by a motor to return unsprayed dope; (3) accessories including pressure gages, thermometer, steam pressure reducing valves, operating valves, condensate traps, and so on. The air-driven pump is said to be operated at a low speed of approximately 200 r.p.m., sufficient only to "exercise a desirable suction on the passed material from the gun and force it back into the heater tank against the incoming pressure of dope from the supply tank."



**BE SAFE - BE CERTAIN**

# *Wire Ahead!*

If the facts below make sense, check up on your wiring plans now!

## **FUTURE MARKETS**

Foresighted market surveys won't mean much if plant wiring and service equipment capacity don't back up potential volume.

## **NEW DEVICES**

Do your plans anticipate the huge increase in the use of electricity—the power demands of new, complex electrical machines?

## **COSTLY TEAR-DOWNS**

Figure the expense of possible downtime and labor costs for emergency wiring and equipment.

## **OBSOLESCENCE**

What about your banker? He'll want to be sure that electrical efficiency is adequate to keep your plant a prime commercial risk.

## **POSTWAR EMPLOYMENT**

You'll want to help assure places for the horde of returning men. Don't let inadequate wiring cramp your personnel.

Obviously unwired planning will cost a lot more than planned wiring. Wire Ahead! Have a talk with your electrical contractor, power engineer or utility power engineer.



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*Well-Planned Power is Future Selling Power—Wire Ahead!*





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or Unscrewing the Inscrutable**

This is the story that tops all stories of American "know how." You'll get a big lift out of every word of it.

**LEARN ABOUT**

"An Invention That Will Last Forever"—the secret of the steering mechanism on your automobile. "The First Machine That Ever Tied A Knot"—and see how a square knot was tied in a new way. "The Invention of the Low-Wheeled Trotting Sulky"—and what it did in 1895 for "Nancy Hanks", the famous trotting mare.

You'll thoroughly enjoy this human account of two great inventors. Besides, you'll learn many facts worth knowing.

*The Story of a Father and Son or Unscrewing the Inscrutable* was written to advertise the Elliott Typewriteable System of Addressing—but it's unique, unlike any advertising you've ever read. It is the inside story of inventive genius at work,—211 patents awarded in the last 70 years to father and son. Read what a few of the thousands of enthusiastic business executives have voluntarily said about it: "First advertising booklet I ever read clear through from beginning to end."—"A fascinating story very humanly told."—"Best thing I've read for eight years."—"One of the most interesting and informative booklets I have ever seen."

Send now for this fascinating 64-page book of valuable facts and delightful humor by writing on your business letterhead to The Elliott Addressing Machine Co., 251 Albany St., Cambridge 39, Mass.

BUY ANOTHER BOND

**Elliott**

**ADDRESSING MACHINES**

# FINANCE (THE MARKETS—PAGE 118)

## Consumer Credit

Banks will offer finance companies plenty of competition. Postwar controls are likely, and service charges may decline.

Returning servicemen and other prospective deferred-payment buyers of the flood of consumer goods that will be available after V-E Day may have a sad awakening if they have been visualizing postwar instalment terms of the old prewar dollar-down, dollar-a-week variety.

● **Won't Fare Too Badly**—While purchase-contract terms are apt to be stiffer than before the war because of continuance of wartime federal controls—principally Regulation W, which requires a minimum down payment of 33 1/3% and payment in full within twelve months—the American consumer isn't expected to fare badly when he can buy freely again.

When the go-ahead signal is finally given on civilian manufacturing, it is estimated that fully 95% of all the nation's commercial banks, compared with only 70% in prewar days, will be actively competing with the instalment financing companies.

● **May Trim Costs**—To many in the trade this prospect suggests a gradual lowering of consumer financing costs.

Already one of the largest factors in the business, Commercial Investment Trust, has announced that it is preparing to offer lower financing rates. Forecasts of a similar tenor have been made recently by officers of commercial banks now becoming more and more active in the consumer credit financing field.

Large companies, such as C.I.T. and Commercial Credit Co., which with General Motors Acceptance Corp. normally handle about 66% of the total volume of business transacted by the 1,000-odd finance companies, months have been laying their plans offsetting the increased bank competition foreseen in their once almost exclusive field.

Branch offices are being reopened and surveys are under way for new branches in areas never before intensively covered.

● **Getting Busy Again**—Finance company representatives have been busy for some time reestablishing and strengthening old business relationships and making new contacts. Staffs are being enlarged.

The big companies haven't overlooked careful study of operating methods in order to improve efficiency and cut costs. New simplified accounting methods are reported, and office machinery is to be improved.

● **Bankers Aided**—The American Bankers Assn.'s committee on consumer credit, in the meantime, has been busy engaged in helping member banks establish

## FACE-SAVING GESTURE

An architectural designer's admiration for the defunct Bank of Pittsburgh's facade has won it at least a year's reprieve from wrecking operations. To save this begrimed Parthenon front, Edward Griffith is paying the annual \$900 city tax while arousing interest in its future use—possibly as a war memorial. Until 1931, these columns on Pittsburgh's Fourth Ave. guarded the oldest bank west of the Alleghenies—founded in 1810. Laid low by the depression, this historic institution has since paid off its depositors with interest (BW—Sep. 12 '42, p. 119). Unable to rent this 49-year-old building, the owner had razed its roof and three walls before Griffith in his desire to save the facade intervened.



ish new consumer credit departments  
enlarge existing facilities.

Its activities, moreover, have stirred  
considerable interest among mem-  
bers. For example, demand for its  
"Bank Manual on Automobile Financ-  
ing" quickly exhausted a first printing.

The New York State Bankers Assn.  
seeing its years of agitation for bank  
consumer credit departments bearing  
fruit. It reports heavy attendance at a  
recent special two-day clinic designed to  
field live pointers on both retail and whole-  
sale instalment financing.

**Syndicates Planned**—Some New York  
City banks, long engaged in large-scale  
consumer financing on their own, are  
now considering organizing large na-  
tional or regional syndicates to finance  
distribution and consumption of con-  
sumer goods by means of close tie-ins  
with their correspondent banks.

Other New York banks, previously  
restricting instalment financing opera-  
tions to direct loans to individuals, are  
studying the feasibility of expanding  
their facilities to include the financing  
of dealer business.

The one uncertainty in connection  
with the postwar outlook for instalment  
financing is the Federal Reserve's Regu-  
lation W.

Consumer groups have lately been agi-  
tating for easing of this stringent control  
with suggestions for relief ranging from  
complete elimination of the regulation  
to a lowering of down payment require-  
ments to 20%, with 15 to 18 months  
for repayment.

**Some Favor Controls**—There is some  
feeling in the consumer financing field  
that a moderate form of federal control  
would be more beneficial to the trade  
than elimination of Regulation W.

None in the trade, however, seems to  
desire the retention of Regulation W  
in its present form for a long period in  
the postwar years. And proponents of  
radical changes in the regulation say  
that continuance in its present form  
would seriously retard instalment pur-  
chases of the low-income groups which  
provided a large part of national con-  
sumer credit totals in prewar years.

Thus far all pleas for easing the re-  
quirements appear to have fallen on  
deaf ears since important Federal Re-  
serve officials are said to believe that  
liberalization of Regulation W terms  
before enough durable goods are avail-  
able for widespread purchase would be  
a dangerous step towards inflation.

**Urges Liberal Credit**—OPA, on the  
other hand, is reported to have recom-  
mended changing Regulation W re-  
quirements to conform with the financ-  
ing industry's prewar credit practices  
as soon as postwar production has been  
resumed on a fairly large scale. OPA  
feels that this would stimulate full

## he'll outlive Methuselah 92,731 years



Meet a man with a life-span of ninety-odd centuries—the average American railroad passenger!

Sounds fantastic, doesn't it? But it's a fact, based on latest passenger traffic statistics. For, if you were to take an average journey of 50 miles each day, your expectancy of life—if it rested solely upon passenger train travel—would be 93,700 years... more than ninety times the age of Methuselah.

Keeping rail transportation "safer than your home" is a big job for men and machines...hydraulically operated machines such as Watson-Stillman has been designing, building and supplying for railroad shops for nearly a century. Watson-Stillman activities go beyond the railroad industry...extend to such fields as synthetic rubber making...plastic molding...gasoline refining...ceramic-working...chemical processes...metal-working...shipbuilding. Wherever new plants are being equipped or existing plants expanded, Watson-Stillman offers products backed by a near-century of experience...engineering advice on present and postwar problems. The Watson-Stillman Company, Roselle, N. J., Designers and Manufacturers of Hydraulic Equipment, Forged Steel Fittings and Valves for all industries.

*Watson-Stillman Equipment for railroads includes Bushing Presses  
Wheel Presses • Pit Jacks • Walter Stock Adjusting Machines • Spring  
Shop Equipment • Crank Pin and Forcing Presses • Rail Benders  
Forged Steel Valves and Fittings.*

# WATSON-STILLMAN

*CRIME  
also strikes  
without  
warning*

Fingerprint files of the FBI contain records of 6,000,000 separate individuals arrested for criminal offenses. "Repeaters" or habitual criminals constitute 40 to 65 per cent of all criminals in the United States . . . Juvenile crime has been increasing steadily.

Like lightning, you can never know where or when crime may strike! Thousands of

crimes against property occur every day. For your protection we suggest you consult your Agent or Broker about the most modern forms of coverage against loss of Money, Securities and other property caused by Dishonesty, Burglary, Robbery, Forgery and any one of a dozen other similar crimes.

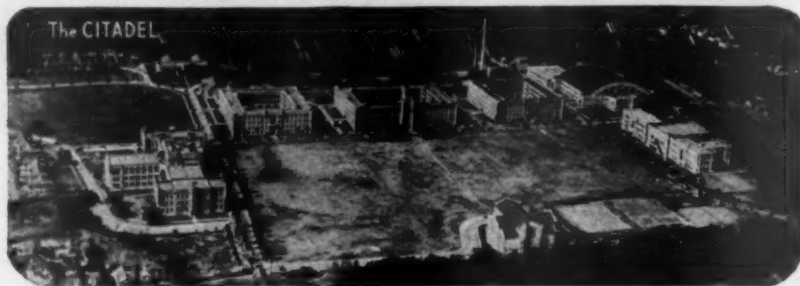
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Including Cornell, Wellesley, Yale, Girard, Johns Hopkins, V.P.I., North Carolina State, The Citadel, Georgia Tech., Alabama Polytechnic, Texas A. & M., Southern Methodist, and others—you'll find Frick Refrigeration performing many vital services.

It's used for storing foods, making ice, cooling drinking water, conditioning air, laboratory instruction, research work, Army and Navy training, quick-freezing, medical purposes, etc., etc.

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**FRICK COMPANY, Waynesboro, Penna.**

# Refrigeration

production and employment and courage consumer financing of purchases out of future earnings rather than by liquidation of savings accounts or war bond holdings.

Consequently, some easing of present federal credit restrictions appears more than just a faint possibility if Germany and Japan are defeated.

Some instalment financing authorities wouldn't be surprised if the industry got off to a relatively slow start in the early part of the reconversion period.

They say any important rise in instalment sales must await volume production of automobiles and other consumer goods and that the initial number of orders will most likely be mainly financed out of war-accumulated savings.

● **May Be Slow Start**—The group likewise believes that mass production normal peacetime lines won't be achieved so quickly as many believe and thus doubts that the finance companies will equal their 1941 record volume of \$6,000,000,000 until perhaps two years after war has ended.

Nevertheless, the industry sees plenty of business ahead, and a C.I.T. office recently forecast an annual postwar demand for some time to come involving some \$7,000,000,000 of durable goods, including at least \$5,000,000,000 of automobiles. He expected that over 50% of these cars would be bought on an "on time" basis.

● **Auto Financing Leads**—Automobile instalment paper accounted for some 80% of the finance companies' 1941 record volume and contract terms of virtually all such paper in recent years have called for the payment of a 6% annual rate on the amount of money borrowed (the unpaid balance of the purchase price plus the insurance premium).

Principal and interest, however, are repaid in monthly instalments, so the effective annual charge to the borrower on the amount of money actually used on a twelve-month basis works out at slightly more than 11%. This is the most standard procedure for automobile financing was, nonetheless, widely advertised by most of the finance companies as a "6% instalment plan" until Federal Trade Commission (BW—Jun. 14 '41, p. 58) forced a change.

On direct loans to individuals for the purchase of cars, a method of financing handled largely by banks in the past, interest charges have generally ranged between 4% and 6%.

● **Others May Follow**—Lower financing costs than these in the postwar period would seem definitely indicated since all participants in the financing field undoubtedly will follow C.I.T. in its announced plan to reduce charges.



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**more  
gearhead  
motors  
in use today  
bear  
the  
MASTER  
name  
than all  
other  
makes  
...COMBINED**



THE MASTER ELECTRIC COMPANY • DAYTON 1, OHIO



The population of Washington State has increased by 316,101 since 1940 — a gain of 18 per cent.

## America's Promising Region

**"The largest of many excellent banks in the Northwest" offers its facilities for the investigation of industrial, agricultural, shipping and other opportunities and for financial service in this region.**

**34 strategically located Banking Offices in the State of Washington — shown by stars on map above.**

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**SEATTLE-FIRST NATIONAL BANK**

Main Office — Seattle  
Spokane and Eastern Division — Spokane

## Small Bank Loses

**U. S. court ducks test of Federal Reserve Bank's power to impose membership restrictions. Jurisdiction denied.**

Can a Federal Reserve Bank impose and enforce qualifying restrictions on a member bank?

• **Still Unanswered**—This puzzler, which has the attention of bankers and officials of holding companies all over the United States, is still unanswered. It came up recently when the small Peoples Bank of Lakewood Village, near Long Beach, Calif., brought suit against the Federal Reserve Bank of San Francisco in U. S. District Court of San Francisco.

A declaratory judgment was asked against a condition imposed by the Federal Reserve Bank at the time the little bank applied for membership. The restriction was that if at any time Transamerica Corp. or Bank of America ever acquired 10% of the Peoples Bank stock the Federal Reserve would terminate its membership.

• **No Jurisdiction**—Recently, Judge Michael J. Roche decided that he had no jurisdiction in the case. He based his decision primarily on the fact that the U. S. government cannot be sued without its consent. His decision implied that if a cause of action exists it should be filed in the District of Columbia.

Last week attorneys for the powerful Transamerica Corp., which is spearheading the fight for the small banks, were debating what course to take. A. P. Giannini, who heads the board of directors of Transamerica Corp. and Bank of America, will fight it out in another round in his five-year battle against the Federal Reserve Board's supposed opposition to the Giannini interests' acquiring any more banks in California.

• **Appeal Seen**—Observers believe the Transamerica Corp. will carry the fight as far as possible on home ground first. It is expected that attorneys for the corporation will file an appeal from Judge Roche's decision. Then, should this fail, the action probably would move to the District of Columbia.

## CHECKS VIA PLANE

Formation of a national clearing house association to effect clearing of checks within 24 hours as a means of eliminating "float" (funds in the process of transfer between bankers) has been recommended to the National

# A Million Jobs are Waiting

... for the Hardest Metal  
Made by Man



(Starting as a metal powder, Carboloy Cemented Carbide is transformed, under heat and pressure, into an endless variety of shapes and forms—tool tips, dies and machine parts with the super-hardness that is vital to high-speed, low-cost industrial production.)

**S**TRAIGHT through industry, after the war, there will be jobs that only the "hardest metal made by man" can handle.

Why? Because the cry is for better, longer lasting products and parts. Because closer tolerances will be combined with mass production.

And because industry knows that postwar profits will depend largely on the cost at which goods of top quality can be produced in top volume.

#### Work No Other Known Metal Can Do

Urgent war production needs brought Carboloy Cemented Carbide into its own. Its *super-hardness* was needed in tools to machine *super-tough* alloys—in dies to draw wire and tubing and to form sheet metal.

Carboloy Cemented Carbide works at speeds once thought impossibly high, to tolerances never before practical in mass production—and

it commonly doubles or triples the output of machines and men.

It is a matter of war record that the use of this magic metal made possible production of three times the number of aircraft engine crankcases and gears with the same equipment and manpower. And this is only one of many examples.

In peacetime production, it is certain that the usefulness of Carboloy Cemented Carbide will be greatly expanded, in widely varied fields—not only for tools and dies but for "wearproofing" parts that must stand up under modern machine speeds and stresses.

#### A "Must" in Tomorrow's Competitive Race

The hardest metal made by man may well write the price tags in tomorrow's "battle of costs." You are invited to take full advantage of Carboloy engineering, facilities and experience in planning products for tomorrow.



CARBOLOY COMPANY, INC.; DETROIT 32· MICHIGAN



# CARBOLOY

TRADE MARK

CEMENTED CARBIDE  
THE HARDEST METAL  
MADE BY MAN



**Have you sent**

**your Christmas packages?**

**MAKE**

**December 1<sup>st</sup>**

**YOUR SHIPPING  
DATE!**



**THE PUBLIC** and industry, with fine spirit, have cooperated with us in expediting Christmas gift shipments. This is a final reminder to make December 1st the day by which you have forwarded your gifts, particularly to out-of-town addresses. Your government requests it so that there will be no interruption in the flow of material needed by our armed forces.

The nation-wide Railway and Air Express Service welcomes its annual responsibility of making Christmas a happy occasion for millions by delivering shipments safely and on time. Remember, please, to wrap carefully — address clearly — call us early.

**MAKE AN  
INVESTMENT  
IN AMERICA**



**BUY THAT  
EXTRA  
BOND NOW**

**NATION-WIDE**

**RAIL-AIR SERVICE**

Assn. of Bank Auditors & Comptrollers by Edwin G. Uhl, comptroller of the Land Title Bank & Trust Co., Philadelphia.

Airplanes, equipped like railroad mail cars, in which clerks would sort the checks enroute, would be used under contract with airlines. Kansas City, because of its central location, was suggested as the clearing city.

Uhl foresees "uniform float" with consequent saving of analysis personnel and time, and elimination of "wire fate" (telegraphed advices of nonpayment of checks over \$500) items as advantages of the idea despite the greater expense involved.

Banks have come to look on "float" as a necessary evil but some banks are endeavoring to reduce their analysis cost by establishing average "float" to eliminate the necessity of examining individual items. Some banks have experimented with other plans for reducing analysis time and costs, but Uhl says these approach the problem from the standpoint of avoidance rather than correction.

## Rank Thwarted?

**Britisher seeks U. S. movie houses, but England's foreign exchange rules may halt plan. New York deal is reported.**

The ambition of J. Arthur Rank, Britain's No. 1 film impresario, to become a big movie theater operator in the United States may be thwarted by England's tight foreign exchange control system.

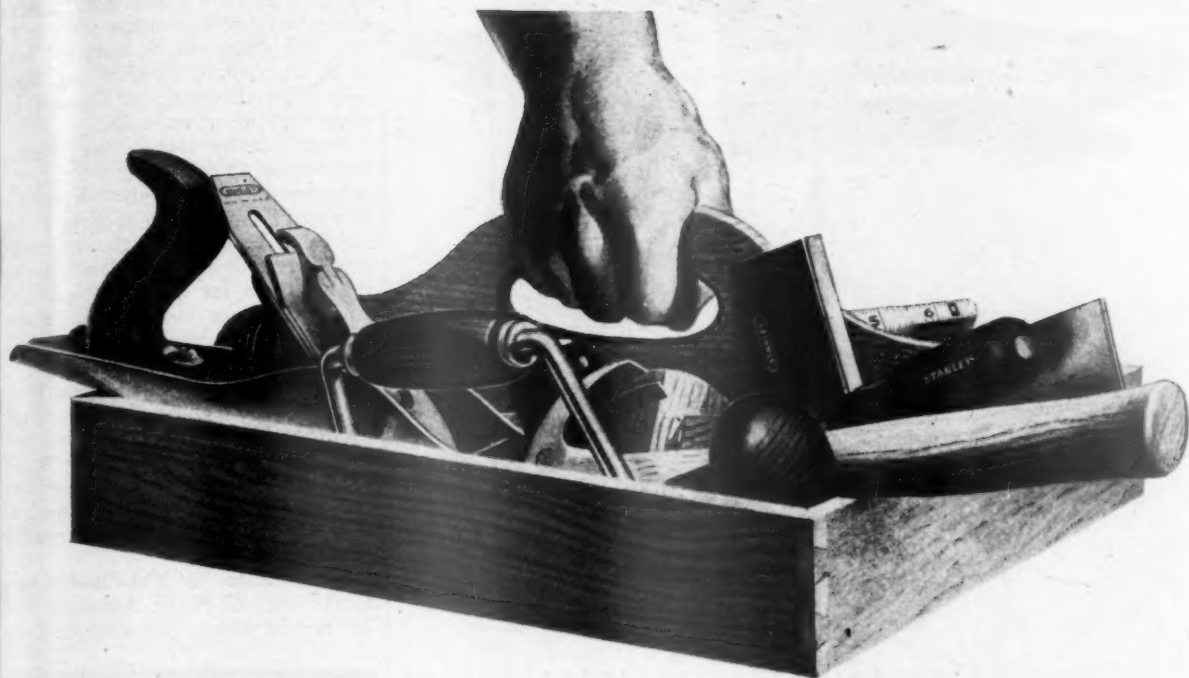
• **Global Ambitions**—Rank's present expansion plans (BW—Feb. 19'44,p76) are reported to include the eventual acquisition of movie houses in the world's key cities.

But Rank's chief concern now is the U. S. He has long argued that his British productions haven't been getting a fair deal in this country, the world's greatest concentrated moving picture market.

This situation he wants to remedy first, and he is said to have in mind acquiring or building a string of houses strong enough to insure proper presentation and exploitation of his Gaumont British productions in most of this country's key cities.

• **New York House?**—Representation in New York City is Rank's immediate desire. He is reportedly now considering a new Broadway house to seat 2,000, or about a third as large as Rockefeller Center's Music Hall.

To accomplish this will require sub-



## Ready... for the Job Ahead

American industry, fresh from the triumph of building the world's greatest war machine in record time, will be ready for the next big job—restoring peacetime living standards—as soon as it can be started.

Stanley Tools will contribute their share in accomplishing the great tasks ahead. For, wherever America builds anything, the men who know tools best depend on Stanley Tools to get the job done faster and better.

You can look to the "Tool Box of the World", today, for the same leadership in design and performance that Stanley has maintained for the past 100 years.

Look to Stanley, also, for Hardware, Electric Tools, Pressed Metal Products, Strip Steel, Industrial Finishes, and Steel Strapping, all bearing the famous Stanley trade mark that is known and trusted by craftsmen everywhere. The Stanley Works, New Britain, Conn.

LOOK FOR THIS TRADE MARK WHEREVER AMERICA IS BUILDING ANYTHING



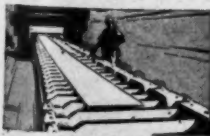
**STANLEY HARDWARE**  
For doors, windows, cabinets, garages, screens, industrial and commercial openings.



TRADE MARK



**STANLEY CHEMICAL**  
Lacquers, enamels, synthetics and japans for industrial finishing.



**STANLEY STEEL**  
Hot and cold rolled strip steel. Standard analysis, special analysis and alloys.



**STANLEY METAL STAMPINGS**  
Formed or deep drawn parts made to order. Special Hinges.



**STANLEY TOOLS**  
Wood and metal working hand tools for carpenters, masons, mechanics and hobbyists.



**STANLEY ELECTRIC TOOLS**  
Portable electric drills, hammers, saws, grinders, metal shears and screw drivers.



**STANLEY STEEL STRAPPING**  
Shipping container reinforcement. Car Banding. Tools for application.



but we can show you how to make  
your product pull sales

## Give it the market making strength of Heppenstall Forgings

An extra "edge" in sales appeal is going to count plenty in tomorrow's competition . . . and you can build it into the vital parts of your products by using Heppenstall Forgings . . . Heppenstall Forgings have the accepted, long time reputation. Call it quality or what you will—in alloy or carbon shafting, rings, back up roll sleeves, shear knives, die blocks or alloy steel in ingot or billet, they consistently result in a substantial margin of added service. Write for quotations, Heppenstall Company, Pittsburgh, Penna.



**HEPPENSTALL COMPANY**

Makers of Heppenstall Automatic Safe-T-Tongs

stantial cash, and Rank must first obtain approval of such a deal from Britain's money control authorities whether he uses the dollars he is receiving from U. S. film rentals, transfers other funds here from England, or finances his plans with American loans.

The industry thinks that approval will be hard to get during the war.

• **Approval Doubtful**—British authorities aren't expected to approve his using funds to build theaters as long as England needs all the dollars it can lay its hands on for more vital purposes. And the movie industry also doubts that the British would O.K. American loans to finance the expansion now.

It's possible that Rank might be allowed to use enough of his American funds to pay yearly rentals on new theaters built for him until he is able to pay for them. But even this wouldn't help him at once since it's questionable when large-scale theater construction may start again.

• **To Operate in Canada**—However, Rank's over-all North American plans are moving along. Increased U. S. dis-



### LENDING A HAND

Brig. Gen. Frank T. Hines, Administrator of Veterans Affairs, signs the government's first loan guarantee issued under the G. I. Bill of Rights. This historic certificate is the advance droplet of a flood of applications from returned warriors who need help in starting a home, farm, or business (BW—Nov. 4'44, p66). It provides a \$2,000 backstop for a \$7,500 loan granted by Washington's First Federal Savings & Loan Co. to aid a discharged soldier in buying a home.



tribution of Rank productions through Twentieth Century-Fox and United Artists (BW—Jun.10'44,p46) is about to start. Also, it has just been announced that Rank and P. L. Nathan-son of Toronto will operate the General Theatre Corp., Ltd., as partners.

General controls, among other motion picture assets, Odeon Theatres of Canada, Ltd., operator of about 100 Canadian movie houses, and the move will further extend the distribution and exhibition of Rank's British productions north of the border.

## MINES TALK FINANCING

Small metal mine operators, many of whom have been financed by the Reconstruction Finance Corp., Metals Reserve Co., or other federal agencies during the war, realize that they will have to go back to the public for peace-time development funds.

To facilitate their financing job, the industry's smaller companies have asked the Securities & Exchange Commission to modify its stock registration rules, eliminating elaborate reports by private engineers and accountants. The mine operators want a simplified SEC registration form.

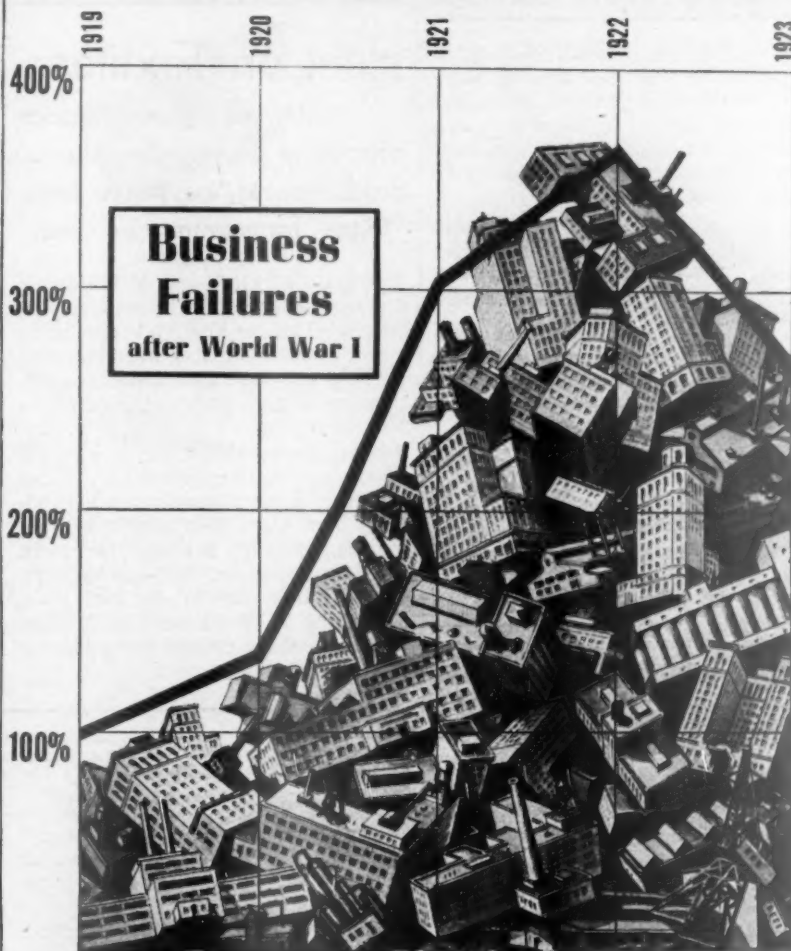
Mining association representatives meeting with SEC and state officials in Butte, Mont., recently gave tentative approval to changes suggested by the federal agency.

The commission is considering eliminating registration for small mining companies with assessable stock. Greater uniformity between state and SEC requirements is also a possibility.

P. S.

American Home Products Corp., the purchaser of some 60 companies since 1926 (including about 30 in 1941-44) and no longer only a maker of proprietary remedies but also a leader in many other fields (BW—Apr.15'44,p60), will soon sell 98,535 additional shares of stock to stockholders at a price expected to bring in some \$7,000,000 of new working capital. . . . The recent proposal of Fort Wayne (Ind.) officials that the city buy the properties of Indiana Service Corp., now serving the area with power (BW—Oct.21'44,p72), was soundly beaten recently by an almost four-to-one vote. . . . Southern Pacific Co.'s unique proposal (BW—Oct.28'44,p69) to eliminate a large part of an important noncallable 4% bond issue not due until 1949 through an exchange by holders for new 30-year bonds paying 4 1/2% through 1949 and 3 1/2% thereafter is meeting with success. Over 50% of the \$50,000,000 of new bonds being offered have already been accepted.

# If History Repeats...Will YOU Foot the Bill?



**After World War I**... from the 1919 level... the number of commercial and industrial failures jumped 267% in three years; current liabilities involved jumped 450%.

**Will History Repeat?** No one knows. That's why manufacturers and wholesalers in over 150 lines of business carry American Credit Insurance... and why you need it too.

American Credit Insurance GUARANTEES PAYMENT of your accounts receivable for goods shipped... *pays you when your customers can't*. Don't face the uncertain future unprotected. Write now for more information to: American Credit Indemnity Company of New York, Dept. 42, First National Bank Building, Baltimore 2, Maryland.

*J. E. F. Fadden*  
President

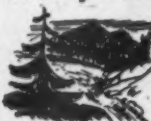


## American Credit Insurance

*Pays You When  
Your Customers Can't*

## YOU OUGHT TO KNOW INDUSTRIAL MAINE

● Yes, Maine is an industrial State. In considering your new business home or branch plant location, you'll find that the State of Maine offers a distinctive combination of factors basic to stable, profitable operation in a wide diversity of lines:



**A VAST RAW MATERIALS SUPPLY, HARD AND SOFT WOODS, MINERAL AND AGRICULTURAL PRODUCTS**



**ABUNDANT POWER AND A TRANSMISSION SYSTEM PROVIDING ELECTRICAL ENERGY EVERYWHERE AT NOMINAL COST**



**PURE, SOFT PROCESSING WATER SO ESSENTIAL TO MANY FINISHING OPERATIONS AND TO LOW-COST PLANT MAINTENANCE**



**SKILLED, INTELLIGENT AND RESPONSIBLE WORKERS, UNUSUALLY CONTENTED BECAUSE THEY LIVE COMFORTABLY HERE IN MAINE**



**EXCELLENT TRANSPORTATION AND FREIGHT HANDLING FACILITIES LINKING SUPPLY SOURCES, PRODUCERS AND MARKETS**



**NEARNESS TO AMERICA'S LARGEST MARKETS FOR CONSUMER GOODS AND INDUSTRIAL EQUIPMENT**



**A STATE GOVERNMENT CONSIDERATE OF BUSINESS IN ITS TAX AND REGULATORY LEGISLATION**



**AND MAINE IS A GOOD PLACE TO LIVE, WITH RELIGIOUS, CULTURAL AND RECREATIONAL OPPORTUNITIES IDEAL FOR YOU, YOUR FAMILY AND EMPLOYEES**

● This book describes in detail the many advantages of locating your new business home in the State of Maine. We'll gladly send a copy and suggest possible plant sites for your business if you'll write.

**MAINE DEVELOPMENT COMMISSION**

**INDUSTRIAL SERVICE  
STATE HOUSE, ROOM B  
AUGUSTA, MAINE**



# MARKETING

## Heat on Textiles

**OPA will tighten its price controls to prevent diversion of production to expensive lines. "Cigar" formula may be used.**

Activity in OPA and WPB textile divisions indicates that Economic Stabilization Director Fred M. Vinson really meant business last week when he called for tightened price and production controls on textiles and clothing (BW—Nov. 25 '44, p5).

● **Long Expected**—OPA's revision of Maximum Price Regulation 127 (cotton and rayon finished piece goods) has suddenly been issued after months of pulling and hauling between the price agency and industry. Revision has been expected from day to day ever since last spring (BW—Jun. 24 '44, p22). But it took Vinson's ultimatum to blast it out.

Along with its whack at MPR 127, OPA announced that the 40,000,000 yards of cotton recently allocated by WPB to children's low-priced clothing will turn up on retail counters in creepers, rompers, overalls, and suchlike with dollar-and-cents ceiling price tags firmly attached. This is the biggest allocation so far to be coupled with dollar-and-cents ceilings.

● **Other Controls Coming**—Other plans for tighter controls are brewing. OPA officials believe they will not lick the scarcity of low-priced clothing until they prevent garment manufacturers from diverting production from low and medium price lines, using the fabric in expensive garments.

To get at this practice, OPA is talking of a "budget plan" which would limit manufacturers to the same average price charged during a base period. This type of pricing formula is now being tried out in the cigar industry (BW—Nov. 18 '44, p93). As an alternative, OPA favors the type of production control WPB established long ago for the shoe

## Low-Cost Clothing Program in Trouble

The joint OPA-WPB program for increasing the supply of low-cost clothing by putting such items as women's housedresses and slips, men's shirts and shorts under dollar-and-cents ceilings (which extend through to the retail level) has run into trouble with the Small Business Committee in the House of Representatives for the reason that there aren't enough of these garments to go around. Small retailers say practically all the clothing produced under special WPB-OPA programs is going to chain stores, mail-order houses, and large department stores, and the little fry have taken their troubles to Congress.

OPA officials admit that small stores are getting less than their share, but argue that it may be difficult to give them any relief without weakening the whole low-cost clothing program.

Trouble is that OPA has followed industry practices by fixing a higher ceiling price for retailers who buy direct from manufacturers than for wholesalers, who add their own markup before reselling to retailers. With unlimited demand and a very short supply, manufacturers are selling

their entire output where it brings the best price—to retailers who buy direct.

If OPA allows wholesalers to pay as much as retailers, then add customary markups before passing the merchandise on to retailers who will add their markups, retail prices of the programed items will vary from store to store. One of the principal objects of the low-cost clothing program has been to provide uniform retail ceilings which can be checked easily for price violations. Moreover, since large retailers buy from wholesalers as well as direct from manufacturers, the same retailer could conceivably have a man's shirt, for example, in stock at two varying—but, nevertheless, both perfectly legitimate—prices.

Ideal solution—from OPA's viewpoint—would be to allow wholesalers to pay more, but persuade them to forego their markups on these particular items. Alternatively, if both wholesalers and their retailer customers trimmed markups a little, retail ceilings could be kept uniform. Obviously, this solution is likely to prove highly unpalatable to the trade.

industry, under which manufacturers must divvy up total production by price lines according to base period percentages.

One reliable report is that Price Administrator Chester Bowles has presented WPB with a list of six demands for tighter production controls which would ease OPA's job of keeping down clothing costs. If WPB does not acquiesce, OPA is expected to adopt the budget plan or equally stringent measures on its own initiative.

• **Rollback for Rayon?**—WPB is scouring its shelves for extra yardage to be allocated to production of low-end garments. As a starter, another boost may be made in the yardage set aside for children's knit underwear.

Revision of MPR 127 is expected to result in a moderate rollback of ceilings on rayon finished piece goods, which may eventually show up in the cost-of-living index. On cotton piece goods, OPA will do well to hold its own, since the reduction in finishing costs can do no more than compensate for price increases granted at the mill level in conformity with the Bankhead amendment to the stabilization act.

• **Finishing Costs Eyed**—The rollback in finishing costs will be accomplished by basing converters' markups primarily on gray goods and other costs, giving finishing costs a very small weight in figuring final markups. Before it was revised, MPR 127 allowed high markups for expensive finishes, thus giving the converter plenty of incentive to process his yardage into grades calling for higher prices.

## SPOTS ON THE WAY OUT

Radio listeners may take hope that the epidemic of singing commercials—which began with Pepsi-Cola's "Nickel, nickel, nickel, nickel"—is finally running its course. This week station WWJ, Detroit, announced that after next Feb. 1 it will accept no contracts for transcribed spot announcements.

Rumor has it that several other large stations are contemplating either complete elimination of spot announcements, or new regulations intended to make them less distasteful to listeners. Some radio men feel that merely banning transcriptions is no solution, since live talent can produce copy just as unpalatable. Many stations have never been very enthusiastic about singing commercials, but they have not always been in position to enforce a ban, as they are now when advertisers are clamoring for air time. WWJ admits that about 25% of its gross revenue will be affected by the new policy.

There are two similar milestones in the industry's regulation of commercial



## DUST CONTROL EQUIPMENT Follows the Flag—

### IN THE AIR



Allied Bombers and Fighters in every theater of war do a better job because their engines are protected against dust by special AAF intake filters. In use for more than three years—they increase engine life many times over!

Special Roto-Clone ventilating equipment increases personnel efficiency and comfort in U. S. tanks. The Roto-Clone is an exclusive American Air Filter Company development, and has been in use by industry for fifteen years.

### ON LAND



Air cleaning is important to America's merchant marine. Loading and unloading creates harmful dusts which must be arrested to protect cargoes. AAF filters are used on our submarines as well, serving the world's greatest fleet.

### ON THE SEA



Second only to Victory—reconversion occupies No. 1 place in today's industrial planning. We are ready NOW to study your potential dust problems and recommend a solution. Write us—there's no obligation. A copy of "AAF in Industry" which describes the complete line of AAF atmospheric and process dust control equipment, will be sent on request.

### UNDER THE SEA



**AMERICAN AIR FILTER CO., INC.**  
387 Central Ave., Louisville 8, Ky.  
In Canada: Darling Bros., Ltd., Montreal, P. Q.

### ENGINEERED DUST CONTROL







*A good way  
to start the  
New Year*

OASIS Electric Water Coolers incorporate all of the best operation and construction features resulting from EBCO'S 20 years of pioneering and leadership in the field. That's why the OASIS is so widely preferred as the dependable answer to thirst.



**The EBCO Manufacturing Company**  
401 W. Town St., Columbus 8, Ohio

## A LASTING GIFT

One of the most appropriate Christmas gifts you can make to your family is the protection and security afforded by adequate life insurance.

It is evidence, in tangible form, of your unselfish desire to safeguard the future of those who mean so much to you. It is the very spirit of Christmas.

**Let Us Help You  
With Your Christmas**



**The PRUDENTIAL**  
**INSURANCE COMPANY OF AMERICA**  
A mutual life insurance company  
**HOME OFFICE NEWARK, NEW JERSEY**

copy: A year ago Columbia Broadcasting System pledged itself to eliminate spot announcements at the opening and closing of network programs, and asked affiliated stations to limit theirs to service announcements such as time signals and weather forecasts (BW—Sep. 25 '43, p. 99). Last spring the New York Times station WQXR ceased to accept contracts calling for singing commercials or jingles (BW—Apr. 8 '44, p. 88).

## Beer Battle

**Brewers fume as Mexican imports flood West Coast, selling under OPA ceilings at double the price for domestic product.**

California beer drinkers with their insatiable thirst are giving OPA another big headache and threatening meanwhile to create an international incident.

• **Can't Meet Demand**—Imported Mexican beer is the cause of all the trouble. Local brewers, hampered by bottle shortages, malt quotas, delivery limitations, and other wartime restrictions, can't meet the demand for beer in war swollen San Diego, Los Angeles, and San Francisco. Consequently, the Mexican beers—Carta Blanca, Mexicali, and Tecate—have a ready-made market, despite the 100% higher prices which can be charged for them under OPA price ceiling regulations.

American brewers are particularly incensed about the flood of Tecate beer which is inundating their market (196,000 gal. in September), because they suspect that the five-month old brewery at Tecate is controlled by U. S. interests. Coast brewers allege that Americans can promote Mexican production and thus escape U. S. restrictions and—most importantly—lower price ceilings.

• **Bigger Margin**—They point out that on sales of Tecate beer OPA allows a wholesale price of \$3.60 for 24 eleven-ounce bottles, compared with ceilings ranging from \$1.55 to \$1.70 a case on American beer. This allows bigger profit margins for wholesalers and retailers. In addition, OPA allows a bottle return of 4¢ on Mexican beer and only 2¢ on American beer; hence, the local brewers claim that many of their empties are going south of the border.

Other complaints are that no excise taxes (\$8 a barrel) are levied on Mexican beer, although it does have to pay an import duty of \$7.75 a barrel, and that Mexican breweries can buy all the materials they want in the U. S. under the favorable terms of a reciprocal trade agreement that created a free port area

...een California and Mexico's Baja California.

**Former Akron Plant**—The Tecate brewery, known officially in Mexico as Cerveceria Tecate S. de R. L., began operation last July. Its entire brewing plant was formerly that of the Akron (Ohio) Brewing Co., which suspended operation on Aug. 17, 1943. Last spring the idle Akron brewery was purchased by the Leisy Brewing Co., an old and well-known Cleveland brewery, largely to obtain the malt. Leisy, thereby able to double its output, kept bottles and some miscellaneous equipment and sold the rest to Buffalo (N. Y.) dealer in brewing machinery.

**Big Plumbing Bill**—For a reported \$50,000 the Buffalo broker sold to "Mexican interests" the compressors, valves and electrical equipment which were loaded into freight cars for shipment to Tecate. The plumbers' bill for dismantling the brewery was \$40,000, cost of loading \$10,000 and the purchasers paid \$30,000 to repair the brewery building since the walls were found out to remove the bulky vats.

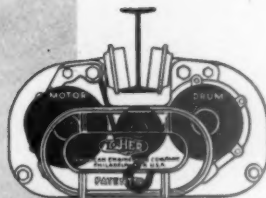
It's those big-money figures which the local brewers question the report from Tecate that the transplanted brewery is owned by a Tecate family called Pretti, which was formerly engaged in the cottonseed crushing business and which also operated a malt plant. Sole distributor of Tecate in the United States is the British-owned importing and exporting company, Balfour, Guthrie & Co., Ltd., of San Francisco, which refuses to comment on all questions and inquiries about the extent of its interest in the Tecate enterprise.

**Another Purchase**—Recent announcement that a second brewery would be built at Tecate only serves to increase local brewers' suspicions—and indignation. Tecate has just purchased all the equipment, except the brew house, of the Tip Top Brewing Co. of Cleveland, for approximately \$150,000.

Tip Top was acquired last July by the Brewing Corp. of America (BW—15744,p48), which retained the malt vats and sold the equipment to J. S. Briggs, Cleveland broker. At Cleveland, Briggs reports that this second brewery was sold to a family by the name of Pretti which formerly made malt.

Brewery No. 2 is reported already to have a contract with San Diego beer distributors for 100,000 bbl. San Francisco distributors will get the second 100,000 bbl.

**Big Shipment**—Already 20 carloads of Tip Top equipment have been shipped to Mexico, with all shipping scheduled for completion next month. Brewery No. 2 won't be in full production until next July.



**Dunking FOUR coils of wire  
instead of ONE saves time with...**

# LO-HED HOIST

● Dipping wire coils was slow and costly, until this wire mill teamed a hook device with a Lo-Hed Hoist—and dipped four coils at one time.

Lo-Heds can be used with ingenious below-the-hook devices for a variety of operations in all industries.

Easy-to-operate Lo-Hed Electric Hoists boost production even with inexperienced labor. Sturdy Lo-Hed design means year-in, year-out operation with minimum maintenance.

Lo-Heds can save you time and money. Get full information today.

Other A-E-CO Products: TAYLOR  
STOKERS • MARINE DECK AUXILI-  
ARIES • HELE-SHAW FLUID POWER



The Lo-Hed Hoist can be adapted for operation on any monorail system. There's a Balanced Lo-Hed Electric Hoist for Every Purpose.

**LO-HED IS THE "BALANCED" HOIST  
FOR HEAVY DUTY SERVICE**

"Balanced" construction gives you low headroom—a desirable plus for which you pay no premium.

Other important features are: all spur gear drive; heavy duty hoist motor; strong, short shafts; high duty bearings; 100% positive automatic stop; removable protective covers for all vital parts.

See your classified phone directory under "A-E-CO Lo-Hed Hoists" for your nearest representative

**AMERICAN ENGINEERING COMPANY**

2520 ARAMINGO AVE.  
PHILADELPHIA 25, PA.

# ARE YOU MOVING MATERIALS MORE THAN 200 FEET?

If you are, you will find you can do the job quicker and at lower cost with the Fork Truck—"Trackless Train" System.



## HANDLE

The Fork Truck (a handling and stacking machine) unloads cars and trucks. Loads are deposited on waiting trailers.



## HAUL

Loaded trailers are coupled to a tractor and hauled to destination. As "The Trackless Train" has no fixed path, it may travel anywhere that necessity dictates.



## STACK

At storage, the Fork Truck removes the loads and stacks them to ceiling heights. Large volumes of materials are moved quickly and at low cost. For complete details request Bulletin 7-11.



THE MERCURY MANUFACTURING COMPANY

# MERCURY

4146 S. Halsted St., Chicago 9, Ill.

TRACTORS • TRAILERS • LIFT TRUCKS

## Bendix vs. Bendix

Row over use of name is brought to a head by decision of aviation firm to make home radio after war. Cross-suit is likely.

Almost nine years ago Bendix Home Appliances, Inc., was organized to build a new kind of automatic washing machine. It became a subsidiary of Bendix Aviation Corp. by trading some of its stock to Bendix Aviation in exchange for specified patent rights owned by Hydraulic Brake Co., another Bendix Aviation subsidiary. In 1940 the parent and subsidiary Bendix companies became disassociated, and last week a court fight began over the uses of the name Bendix.

• **Sole Rights Claimed**—Bendix Home Appliances, Inc., South Bend (Ind.) producer of the washer, sued in New York to enjoin Bendix Aviation Corp. from using the name in connection with the sale of home radios or other home appliances. The plaintiff claimed exclusive rights to the name in that field.

Bendix Aviation promptly retorted that it intends to file countersuit to restrain the appliance company from capitalizing on "improper" use of the Bendix name in advertising. It was stated at Bendix Aviation headquarters in Detroit that the appliance firm holds only limited rights to the use of the name.



## PORTABLE PRESS WIRELESS

Arriving at Chicago's Northwestern R.R. station, Carole Landis gives her first press interview via the military Walkie Talkie field radio while a locomotive engineer watches (left). Firing questions at the movie actress from

A situation in which two companies claim the right to an obviously individual and distinctive name is not unprecedented. But a judicial division of the name by fields of use would be regarded as unusual. It is conceivable that the ultimate court decision might not only define the areas in which each company may employ the name, but also how it may be used.

• **Details Private**—Arrangements which Bendix Home Appliances and Bendix Aviation joined forces and parted were never completely revealed. It has always been assumed, because Bendix Aviation until 1942 was largely the personal operation of Vincent Bendix, that he set up the deals by which the washing machine company was started and came under the banner of the older company.

Likewise, when the appliance concern went out on its own in 1940, little information developed about the partition. Today's Bendix executives say the arrangements gave the appliance firm the use of the name only for the laundry machine.

• **G.M.'s Hand**—In 1942 Vincent Bendix left the presidency of the aviation company. Reports at that time were that General Motors Corp., holder of nearly a fifth of the Bendix stock, wanted a closer tie with its management.

Ernest R. Breech, a G.M. division vice-president, succeeded to the Bendix presidency in 1942. Bendix Aviation records show no present stock ownership in Vincent Bendix's name, but he has



his desk several blocks away is Clarence Lane (right), city editor of the Chicago Daily News. This demonstration of easy coverage of spot news breaks was staged recently by Galvin (Motorola) Mfg. Corp. to promote some postwar markets for its portable two-way communications equipment.



# SYLVANIA NEWS

## EXECUTIVE EDITION

DECEMBER 2

Published in the Interests of Better Sight and Sound

1944

### Post-war Television Tubes by Sylvania will help to Lower the Prices of Sets

Greatly increased effectiveness of cathode ray tubes will be one of the important factors in the manufacture of reasonably priced television receivers in the post-war period.

Large-scale production of these picture



FINAL INSPECTION of television tubes in the Sylvania plant prior to shipment.

tubes to meet the requirements of war, plus new secret developments born of extraordinary war research, have given Sylvania the capacity and knowledge to make these tubes (the most expensive part of the television set) better and at lower cost than ever before.



Photo taken in Television Studio, WCBB, Columbia Broadcasting System

### Television Offers Many Commercial Possibilities Beyond Studio Shows

#### "Backstage" Tour of Industries Just One of Ways Telecamera May Help Promote Sales

Television's role as a sort of "super-salesman" in the field now occupied by sound broadcasting is, of course, well known. What may not be so well-known is the wide range of opportunities television offers the businessman for sales promotion, publicity and good will.

By means of the telecamera the automobile manufacturer can show dealers new-model cars. Housewives may attend a New York fashion show without leaving the house. Whole audiences can be taken "backstage" in an aircraft factory, for example, to see transport planes in construction, encouraging air mindedness.

Employees in widely scattered plants, distributors from coast to coast, customers and prospects in key market areas all can be reached (instantaneously), informed and even sold as never before through the miracle of television.

### Warplane Output Tops Goals, with Sylvania Lighting Lending a Hand

#### Glarefree Fluorescents Helped Speed Aircraft and Engine Production

With cut-backs in many phases of aircraft production giving clear-cut evidence of the industry's amazing success in at-

taining production levels undreamed of three years ago, it can now be disclosed that in a number of leading plants, the cool, high-intensity, glarefree illumination of Sylvania Fluorescents is credited with an assist in maintaining output volume.

In the giant Ford bomber plant at Willow Run, for example, there are more than 110 miles of Sylvania Fluorescents.

**SYLVANIA  ELECTRIC**

**PRODUCTS INC.**  
500 Fifth Ave. • New York 18, N. Y.

MAKERS OF FLUORESCENT LAMPS, FIXTURES, ACCESSORIES, INCANDESCENT LAMPS, RADIO TUBES, CATHODE RAY TUBES, ELECTRONIC DEVICES

## WHAT IS GLASS-LINED STEEL?



Pfautler Glass-Lined Steel combines the acid resistance of Pfautler Glass with the strength of steel. When fabricated into such types of vessels as stills, reactors, kettles, towers, mixers, tanks, etc., it permits the processing of either acid or non-acid solutions with complete freedom from contamination or corrosion.

In making such equipment, after the steel shell has been carefully fabricated, a silica base glass is sprayed by expert Pfautler workmen onto the inside surface. After firing at high temperature in furnaces large enough to take a railroad tank car, the glass, fused into the steel, becomes the tough, lustrous Pfautler Glass-Lining.

### For Laboratory, Pilot Plant and Full Scale Production

If you have a process involving corrosive conditions or demanding high product purity why not take advantage of Pfautler's 60 years experience? Investigate the properties of Glass-Lined Steel Equipment . . . engineered to the job. Pfautler Engineers will discuss your problem with you, without obligation. Write: The Pfautler Co., Dept. "B", Rochester 4, N. Y.



**PFAUTLER**  
ENGINEERS AND FABRICATORS OF  
CORROSION RESISTANT PROCESS EQUIPMENT

holdings in Bendix Home Appliances, and today sits on that board.

• **Free Ride**—Last year, according to Bendix Aviation, bickering began over the use of the name in advertising. The aviation company, now producer of nearly a billion dollars a year in war goods, felt that its large advertising program was providing a free promotional ride for the appliance firm; and it protested, under threat of legal action, the washing machine company's use of the name in advertising.

Bendix Home Appliances, meanwhile, has some complaints of its own. It made a survey which, it maintained, established that the name, Bendix, meant a washing machine to 97% of women queried. So it believes it is sufficiently established in the field to be entitled to exclusive rights throughout the sphere of home appliances.

• **Brought to a Head**—Arguing by letter over respective rights might ultimately have led to the suit, but Bendix Aviation's announcement of intention to manufacture a home radio after the war (BW—Sep. 2'44, p9) brought things to a quick head. The suit threats of the aviation company were countered by the appliance firm's getting to court first.

## Vitamins Retrend

Proprietary houses see writing on wall in the decision of Standard Brands to withdraw Stams and Stan-B from market.

Manufacturers of popularly advertised vitamins saw the writing on the wall a fortnight ago when Standard Brands announced that it was withdrawing Stams, multivitamin tablet, and Stan-B, B-complex and iron tablets from the market. The question now is who's next?

• **Phenomenal Sales**—The trade has long known that the proprietary houses (makers of vitamins advertised directly to the consumer) have not been doing as well as the big ethical producers (whose vitamins are promoted indirectly through physicians and druggists). The week, the trade was waiting for other popular brands to follow Stams and Stan-B off the market.

Even for the war's boom years, the recent sales performance of vitamins has been phenomenal. Drug Topics

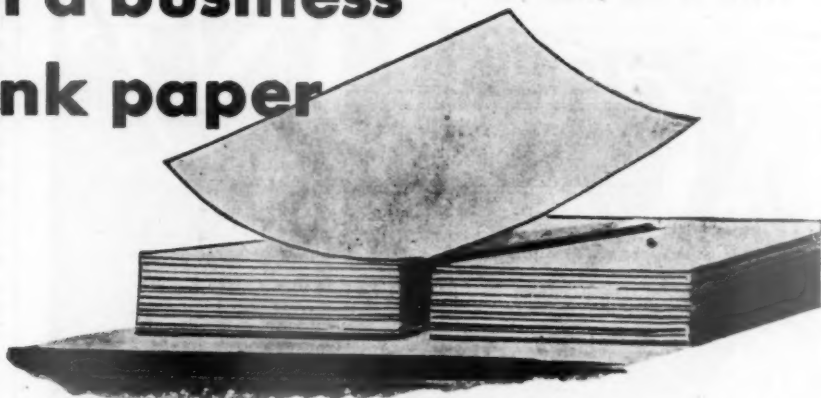


### STATE AT STAKE

In the nation's whisky capital three of the most ardent dry leaders plan quiet strategy for prohibition's return. Officials of the Anti-Saloon League of America which convened last week at Louisville, Ky., they are (left to right): Dr. Ralph H. Cushman, president; Walter J. Hoshal, the league's Kentucky chief; and Rev. Sam Morris, field speaker. Although about 50%

of the nation's liquor is distilled at Louisville, the league's meeting there was for no frontal drive against the distillers. The A.S.L. was more interested in pushing into the column the whole state of Kentucky which has voted local prohibition in 84 of its 120 counties since repealing it. That would give the politically wise dries a chance to gain more Washington representation for another crack at a "noble experiment."

# How to run a business with blank paper



**E**VERY person in the United States is affected in one way or another by the paper shortage. Paper must be conserved. Yet, in the face of this emergency, the paper work of business is heavier than ever before. Business requires—and is consuming more paper.

There is a practical way for business to reduce consumption and waste of paper—and at the same time do it profitably by simplifying many office opera-

tions so that time is saved, manpower conserved, labor lightened, errors reduced, and office routines speeded up.

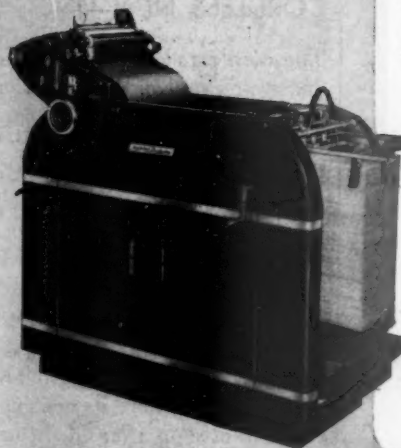
This can be done by the use of Multilith Systemats, a development new to general business, but which is already providing invaluable services to businesses large and small, to Government offices—and the Armed Forces.

A Systemat is an inexpensive paper-like master sheet. It

carries your forms (constant information) for purchase orders, job tickets, shipping documents, etc., etc. in reproducing ink. Variable information is written or typed in on this Systemat. It then becomes the master sheet to go onto a Multilith Duplicator to produce the dozen, score, or hundreds of copies needed—each copy an original, black-on-white, permanent facsimile—all from blank paper.

## MULTILITH DUPLICATING SAVES BY:—

1. Reducing need for Printed Forms.
2. Reducing Stationery Inventories.
3. Eliminating Obsolescence of Forms.
4. Permitting Consolidation of Several Forms into a Single Form.
5. Avoiding Wasteful "Over-Runs".
6. Maintaining Legibility.
7. Preventing Discards because of "Errors in Copying".
8. Utilizing Both Sides of Paper.
9. Using Inexpensive Paper Stocks.
10. Dispensing with Carbon Sheets.



Let a Multigraph man explain the broad scope of Systemats and how they enable business to replace shelves of printed forms with stocks of blank paper. Phone the nearest local office or write Addressograph-Multigraph Corporation—Cleveland 17. Sales offices with service and supply departments in all principal cities of the world.

# Multigraph

TRADE-MARK REG. U.S. PAT. OFF.  
SIMPLIFIED BUSINESS METHODS



Systemat, Multilith and Multigraph are Registered Trade-marks of Addressograph-Multigraph Corporation.



**THIS is the time for**

# ACTION!

**16,000,000 Pacific Coast Residents  
await your peace time goods . . .**

**The Pacific Coast** is beginning to convert to peace-time production as energetically as it tooled for war. And 16 million consumers, with a better than average purchasing power, are eagerly awaiting more consumer goods.

**This is the time** to get in on the ground floor of the rich Pacific Coast market, by establishing a plant in Santa Clara County. General Electric Co., I. B. M., Food Machinery Co., Permanente Metals, Joshua Hendy Iron Works, and scores of other manufacturers of note have plants here—at the population center of the Pacific Coast.

**Your Santa Clara County plant** will tap a large supply of available labor—both men and women. Taxes are low—climate is highly productive. Transportation by rail, truck and water is unsurpassed. Raw materials abound—and manufacturers tap the greatest power pool in the world.

**Santa Clara County** is the perfect example of decentralized industry. It is a young aggressive area that is growing industrially faster than any other section of the Pacific Coast.

## WRITE FOR THIS BOOK TODAY

*This is the time to act! Your first step is to write on your business letterhead for Post-War Pacific Coast, the story of Santa Clara County. No cost or obligation.*

Dept. W  
SAN JOSE CHAMBER OF COMMERCE  
SAN JOSE 23, CALIF.



# SANTA CLARA COUNTY

*California*

The population center of the Pacific Coast

trade magazine, estimates total retail sales of all vitamin concentrates at just short of \$180,000,000 in 1943, about \$135,000,000 in 1942, and \$83,000,000 in 1939.

• **Ethical Houses Ahead**—In a market like this, presumably, there would be room for everybody. The fact remains that many proprietary brands have found the going tough. Estimates are that the ethical brands now account for between 75% and 90% of total retail sales.

Speculation as to the whys and wherefores centers on this point: In the moderate doses in which they are sold to consumers, vitamins are purely preventive, can't cure anything. The consumer sees no beneficial results, won't keep buying them unless urged to do so by his doctor or pharmacist. Proprietary makers have been plagued by their inability to maintain repeat sales.

• **Labeling Blamed**—Some druggists believe that establishment of U.S.P. standards and Food & Drug Administration labeling has led most consumers to think that all vitamins are the same. Hence, say the druggists, consumers are buying ethical brands recommended by physicians or lower-priced distributor



## CORDLESS NEW LINE

The cordless electric iron is the first "postwar" appliance to roll from Detroit's Eureka Vacuum Cleaner Co. Under a spot authorization by WPB, Eureka may make 1,000 irons during 1944's final quarter and 450,000 of them by October, 1945. Its sweeper production for the same periods is slated at 140,000. The cordless iron, heated by a thermostat-controlled element in the stand, was produced before the war, but not by Eureka, which hopes to have its new model on the market soon after Christmas.

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brands, and are little influenced by advertising.

Within the proprietary trade itself, the belief is that the makers of popular brands have been laying out an average of \$2 in advertising for every \$1 they get back in sales. J. S. Adams, Standard Brands president, announced that "under present conditions it is not possible for Stams and Stan-B to develop sufficient volume to warrant extensive advertising on a profitable basis."

• **What the Trade Thinks**—Sources close to Standard Brands believe, however, that Adams told only part of the story.

One theory is that Stams and Stan-B's, kept too long in stock, had deteriorated in potency, and that Standard Brands withdrew them to maintain the goodwill of druggists for other products up its postwar sleeve. From \$500,000 to \$1,000,000 of the products on druggists' shelves were called back by Standard. Speculation is that the company may return to the vitamin market with an improved ethical product on which it can secure repeat sales.

• **Whispering Campaign**—Some members of the trade believe that Standard Brands' position as a food house worked against it in the drug trade, where it was whispered among druggists that the company was merely using drugstores to gain consumer acceptance for its products, would later switch to distribution through food stores.

Most other advertised vitamin concentrates are backed by firms experienced in the drug field—One-A-Day (Miles Laboratories), Vitamins-Plus (Vick Chemical Co.), Defenders (Grove Laboratories).

Since it owns Pepsodent Co., Lever Bros. seemed in a good position to promote its Vimms to the drug trade, but cancellation of the Vimms CBS radio show, featuring Frank Sinatra, this week suggested that Vimms might follow Stams off the market.

• **A Doubtful Theory**—There is little support in the trade for the theory that fear of a crackdown by Food & Drug Administration or Federal Trade Commission had anything to do with Standard Brands' move. Both agencies look with disfavor on most vitamin advertising, but their attitude isn't considered a factor in the present case.

Regardless of the fight between proprietary and ethical vitamin producers, they are getting together on one project—a prospective vitamin foundation which will meet in New York in January to complete its organization.

Projected as a trade association to embrace both branches of the industry, the foundation marks the first effort to achieve some organization in a notoriously disorganized industry.

## OUT OUR WAY



**SPEEDI-DRI** is the modern, economical, efficient answer to oil-soaked, slippery floors. White, granular, and oil-thirsty, it is spread by hand and swept up with a stiff brush without shutting down a single machine. Its use eliminates expensive mechanical cleaning equipment, caustics, and dangerous solvents, and greatly reduces the man-hours needed for clean-ups. At the same time, it does a better job.

As soon as it's applied, it provides a non-skid surface. Workmen can move at top speed without fear of slipping. It absorbs oil and grease like a blotter takes ink, even pulling up old deposits in time. **SPEEDI-DRI** is non-combustible and fire retardant. Leading insurance companies recommend its use. There are 101 money-saving applications of **SPEEDI-DRI**. Write your name and address on the margin of this advertisement for complete facts — and **FREE SAMPLE!**

**SUPPLIERS:** East—Refiners Lubricating Co., New York 1, New York.

Midwest & South—Waverly Petroleum Products Co., Philadelphia 6, Pa.

West Coast—Waverly Petroleum Products Co., Russ Bldg., San Francisco 4, Calif.

**SPEEDI-DRI**  
OIL AND GREASE ABSORBENT





**Watch Dog**  
REG. U.S. PAT. OFF.

### Lasts Five Times Longer

One reason why maintenance men are replacing with General Electric's popular Watch Dogs is because of their unusually long life. Under specified test conditions the FS-40 outlasts an average of ten 40-watt lamps, the FS-100... eight 100-watt lamps. The G-E Watch Dog lasts five times longer than ordinary fluorescent starters.

### Reason For Its Long Life

Ordinary starters wear themselves out prematurely because they continue to make futile starting attempts when a lamp begins to die. This is not so with the G-E Watch Dog because it cuts itself out of the circuit as soon as a lamp reaches the end of its useful life. Since there is no flow of current, burned-out lamps are prevented from being started needlessly and the Watch Dog's life is greatly prolonged.

Hear the General Electric radio programs: "The G-E All Girl Orchestra" Sunday 10 P.M. EWT, NBC, "The World Today" news every weekday 6:45 P.M. CBS.

**BUY WAR BONDS AND KEEP THEM**

For additional information write to Section G1241-102, Appliance and Merchandise Dept., General Electric Company, Bridgeport, Conn.

**GENERAL ELECTRIC**

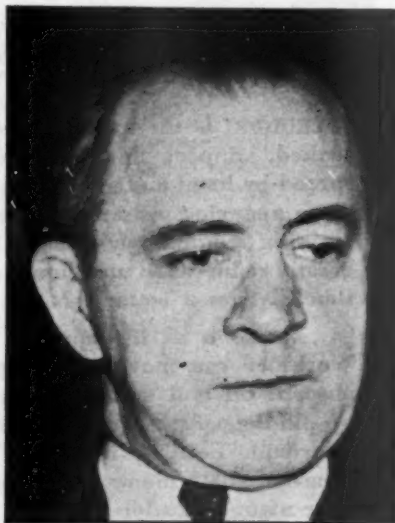
# LABOR

## No Labor Unity

Conventions of A.F.L. and C.I.O. stress the hazards of pursuing their vendetta, but do nothing about ending it.

The specter of postwar problems hung over conventions of the Congress of Industrial Organizations and the American Federation of Labor last week. But while discussions many times took parallel lines, there was little doubt that labor's two major groups are no closer to unity after nine years of bitterness.

• **Gains Reported**—The two unions met at the peak of their strength. It was the 64th annual gathering of the A.F.L., and its officers reported that addition of two new international unions during the year had brought to an even 100 the number of affiliates. Membership had increased 3.6% over last year, to 6,806,913, the federation claimed.



At the A.F.L. convention in New Orleans last week, Harvey Brown (left), president of the International Assn. of Machinists, again faced William Hutcheson, of the Carpenters Union, in the jurisdictional issue which took I.A.M. out of the A.F.L. for several months last year. He is also feuding with the Operating Engineers and Street Railway Employees unions on the same basis. Claiming

The C.I.O. reported it had climbed closer to the membership of its arch-rival, an over-all gain of 650,000, or 11%, bringing the total membership of its 41 affiliates to approximately 6,000,000.

Never before had organized labor been so strong, yet neither group showed signs of cockiness. Instead there was obvious recognition of the postwar threat of mass unemployment and loss of wartime gains in union organization and influence.

• **NWLB Attacked**—Both conventions conducted bitter attacks against the hold-the-line policy of the National War Labor Board toward demands that the ceiling on wages be lifted (page 16).

C.I.O. criticism was led by Murray, who accused Congress and the NWLB of breaking their pledge to keep wages and prices balanced.

Murray—also president of the United Steelworkers of America, whose wage increase case was acted upon by NWLB the day after the C.I.O. adjourned—singled out for criticism George W. Taylor, NWLB vice-chairman and public member specializing in wage prob-



jurisdiction over making, erecting, and repairing machinery, Brown said he has called a special convention of his union to consider failure of the federation's executive council to keep its 1943 promise to settle I.A.M. claims. But if the decision goes against the carpenters, Hutcheson vows he'll withdraw his union. Thus far President William Green and his executive committee have kept silence.



ems, and demanded that he resign. Hardly a week before, President Roosevelt had refused to accept Taylor's resignation, and had asked that he remain on the board until the end of the war in Europe (BW—Nov. 25'44, p5).

**Delay Charged—**Criticism by the A.F.L. was largely against the delay of the NWLB in handling cases, with Green reporting that the union's no-strike pledge was given on the assumption that effective machinery would be created to settle labor disputes in a reasonable time.

**P.A.C. Retained—**The C.I.O. voted to continue its Political Action Committee under the leadership of Sidney Hillman, and instructed it to maintain an independent course of action, free from alliance with either major party, with progressive legislation and the local elections of 1945 and congressional contests of 1946 the next objectives.

(The National Citizens Political Action Committee, also led by Hillman, likewise has voted to continue active, with no direct ties to C.I.O., and to invite the membership of all progressives, including members of non-C.I.O. labor groups.)

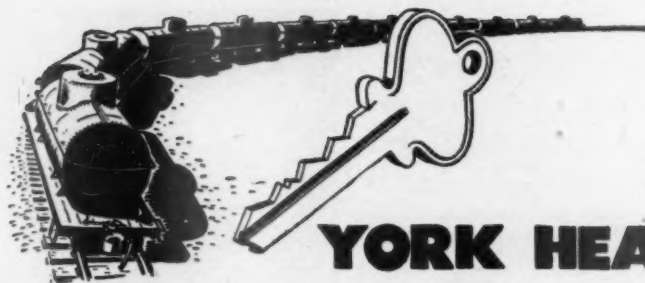
**Compliments Exchanged—**The C.I.O. criticized A.F.L. officers and board for their failure to support Democratic candidates' activity, was criticized by A.F.L. for endangering labor's traditional independent action strength by entry into politics.

Both C.I.O. and A.F.L. pledged protection of the accrued seniority of veterans who return to their jobs, and both opposed superseniority for all veterans as advocated by Selective Service. C.I.O. supported a plan (BW—Nov. 25'44, p 106) to permit veterans obtaining jobs in plants for the first time to acquire seniority for time spent in the armed forces, but specified that this should not be a basis for "bumping" workers out of their jobs.

**Hatch Act Revision—**The C.I.O. asked for lifting of restrictions against collective bargaining from 3,000,000 government employees, and asked for amendment of the Hatch act to permit them to engage in political activity.

The ticklish problem of the future of Negroes in industry when cutbacks come was skirted at both conventions. C.I.O. acted gracefully, with a unanimous vote opposing all forms of discrimination, an invitation for Negroes eligible for trade unionism to join the C.I.O., and a demand for a permanent Fair Employment Practice Committee to insure that Negroes will be permitted to remain in industry after the war.

**Bill Condemned—**The A.F.L. executive board indorsed the principles of the FEPC, but criticized the present bill to make the plan permanent be-



## YORK HEAT

### Provides the Key to Bunker C

YORK HEAT industrial horizontal-rotary oil-burners unlock the tremendous power in the heavier fuel-oils. These oils . . . No. 5, and No. 6 . . . are richest in BTU content, lowest in cost. York Heat converts them into efficient, economical, flexible power.

These York Heat oil-burning units . . . available now . . . are engineered to meet the needs of

every commercial or industrial application. They are part of the most complete line of domestic, commercial, and industrial oil-burning equipment in America.

Write us for detailed information of York Heat's outstanding advantages and exclusive, patented features. York Heat engineers are at your service in adapting York Heat to your plant.



## YORK HEAT

Division of YORK-SHIPLEY, INC., YORK, PA.

MEMBER OIL HEAT INSTITUTE OF AMERICA

★ HASTEN VICTORY — BUY MORE BONDS THAN EVER ★

laurels  
for a  
million  
triumphs



Final victory is the sum of a thousand daily triumphs. Facing cataracts of destruction, a fighter masters fear . . . defying crippling shortages, a worker builds freedom's arms . . . banishing heartache, a wife writes cheerfully of home. Valiant heroes and humble citizens alike shall share the laurels of final victory, for each in his own capacity contributes to the indomitable spirit of America.



## R.C. Allen Business Machines

ALLEN CALCULATORS, INCORPORATED  
678 FRONT AVE. N. W., GRAND RAPIDS, MICH.

Makers of World Renowned Business Machines

When final victory releases capacities now devoted to war production, Allen's entire resources will resume the manufacture of 10-Key Calculators, Portable and Standard Adding Machines, Bookkeeping Machines, Cash Registers, Statement Machines and All-Purpose Office Machines, electric or hand operated.

**America's Most  
WIDELY USED  
Photo-copy Equipment  
A-PE-CO "Photo Exact"  
Photo-Copyer**



Photo-Copyer  
**\$55**  
Copies up to  
18" x 22"

**"A Business Necessity"  
Say Executives**

159 tested uses . . . accuracy . . . operating ease . . . saves time . . . speeds work—these are only a few of the many reasons why A-PE-CO is America's most widely used photo-copy system. And A-PE-CO is lowest in price.

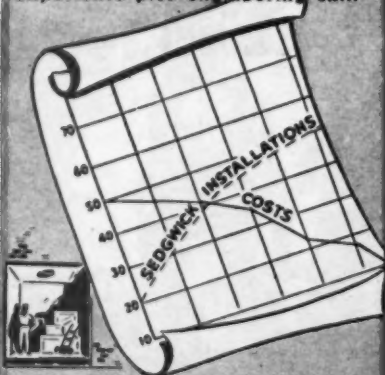
**Photo-Copies Made Instantly of:**  
LETTERS TRACINGS FINANCIAL RECORDS  
BLUEPRINTS CONFIDENTIAL PAPERS CONTRACTS  
. . . anything written, printed, drawn, or photographed, on one or both sides. Easy to read, permanent, legally accepted.

**Send for This Useful Folder**

In your own office or shop, any inexperienced employee can make A-PE-CO photo-copies. No technical training. No darkroom. Needed now for reconversion, new planning, sales development. A-PE-CO folder tells you how you can use this modern method in your office. Send for it—today.

**AMERICAN PHOTOCOPY EQUIPMENT CO.**  
2849 N. Clark St., Dept. E-124 Chicago 14, Ill.  
Representatives in principal cities and Canada

**experience plus engineering skill—**



**HOW TO REDUCE COSTS**

Properly planned elevator and dumb waiter installations can help reduce costs by moving men, material and merchandise better and faster.

For more than 30 years Sedgwick precision-manufactured, soundly engineered Freight and Passenger Elevators and Electric and Hand Power Dumb Waiters have been solving "man" handling and materials handling problems in every type of building—public and private.

Sedgwick "know how," gained through practical research, planning, manufacturing and installing, has helped many manufacturers solve their cost reduction problems by solving their materials handling problems. Changes are we can solve yours. Tell us about them.

**Sedgwick MACHINE WORKS**

156 West 13th Street, New York 11, N. Y.  
ELEVATORS • MATERIALS HANDLING EQUIPMENT



At the C.I.O. convention public figures and labor leaders confer in an informal spirit of political unanimity. Bending an ear of New York's Mayor Fiorello H. LaGuardia is Philip Murray, C.I.O. president, while the union's Political Action Committee chieftain, Sidney Hillman, and Vice-

President Henry A. Wallace listen intently. Although the Vice-President's failure to win the Democratic nomination for reelection was the P.A.C.'s biggest setback, representatives of its C.I.O. parent demonstrated at the convention for Wallace's nomination and election for President in 1948.

cause it would force the canceling of many A.F.L. contracts having restrictive clauses, and because it would use compulsion to force unions to admit Negroes to membership.

C.I.O. reaffirmed its no-strike pledge without dissent, despite a strong movement, particularly in the United Auto Workers, for abrogation. Reaffirmation by A.F.L. appeared certain.

• **Unity of Action**—On domestic problems, the C.I.O. indorsed Murray's recommendations for unity of action by the government, labor, industry, and agriculture on demobilization and disposal of surplus goods; an increase in minimum wages above the present (40¢) level; a guaranteed annual wage; a broadened program to include payment of expenses for transportation of workers and families to homes or new jobs, supplemental federal unemployment compensation, and an increase in the time over which unemployment grants will be paid.

• **To Attend Conference**—Along international lines, the C.I.O. formally accepted an invitation to a preliminary international labor conference in London in December and a world conference opening in London in February. It indorsed the Dumbarton Oaks and Bretton Woods proposals; criticized Spain and Argentina for fascist leanings;

and demanded that colonial areas be allowed to become self-governing.

• **A.F.L. Balks**—Green restated the A.F.L. position on international labor cooperation by refusing pointblank an invitation for A.F.L. to be represented at the two conferences. He said that A.F.L. favors the collaboration of free unions, but, on the ground that Russian unions are government-dominated, opposes any change in the international labor structure which will permit Soviet laborites to hold membership.

As an alternative, Green urged reliance on "old, tried friends" through revitalizing the prewar International Federation of Trade Unions, an organization which excluded Russian unions and limited membership to one union from each country—thereby barring entry of the C.I.O.

• **Reconversion Plan**—On domestic issues, A.F.L. called for reconversion planned along lines of the Kilgore-Murray-Truman bill, repeal of the Connally-Smith law, wiping out of the poll-tax barrier to voting, raising of the minimum wage, collaboration with the Cooperative League of the U.S.A. to combat a trend toward elimination of cheaper goods from the market, and a fight to invalidate state antilabor laws adopted in twelve states.

Primarily, however, the A.F.L.'s early

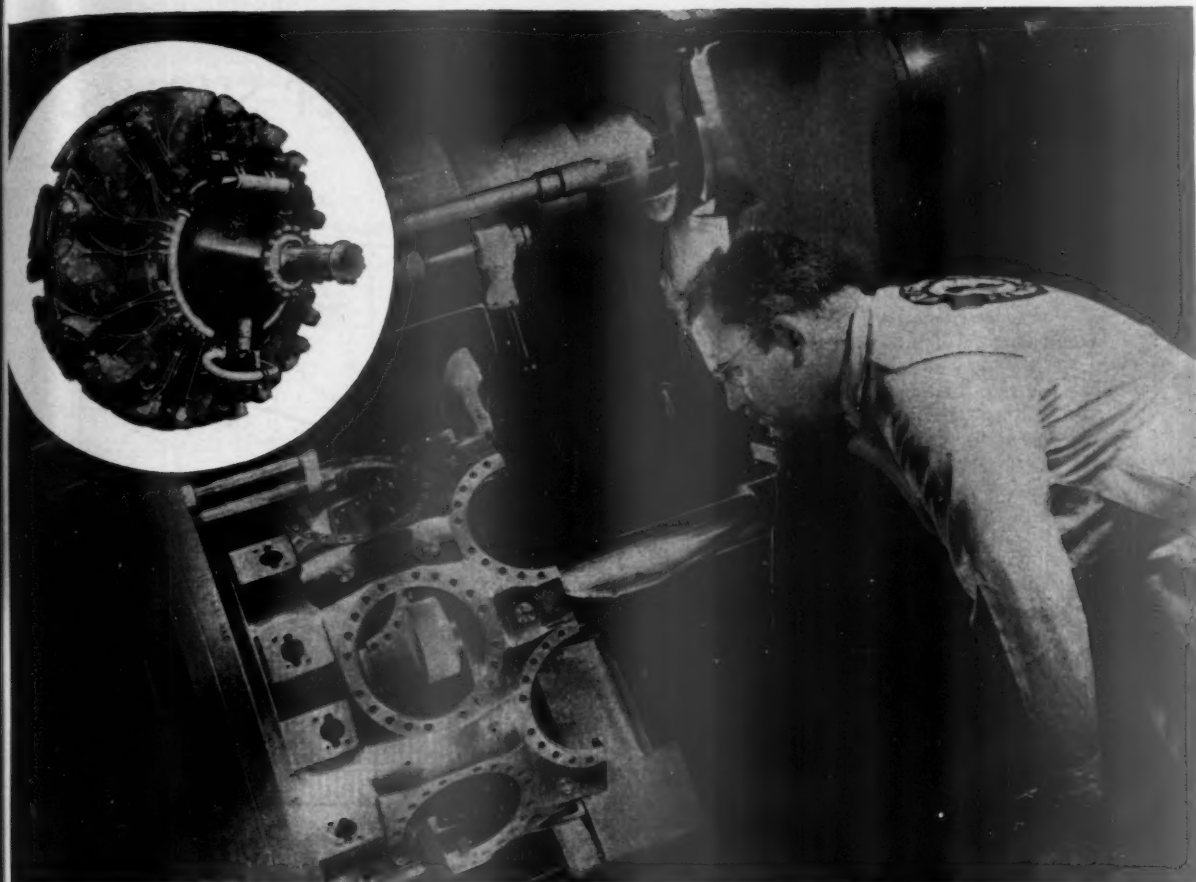


Photo Courtesy Wright Aeronautical Corporation

## 100 MORE HORSEPOWER—NO MORE WEIGHT

In no other product of man's ingenuity is weight-to-power ratio of such prime importance as in aircraft power plants. That's why Republic Electric Furnace Steels are so amply used in aviation engines.

Here is an outstanding example of the high strength-to-weight ratio of these steels.

When adopted as the material for the crankcase of a famous-named radial engine, Republic Electric Furnace Steels not only permitted an increase of 100 horsepower but *actually reduced the weight*.

There are other reasons, too, for the use of these fine steels.

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# WHAT THE LABOR BALANCE SHEET SHOWS

## Figures Behind the Manpower Problem

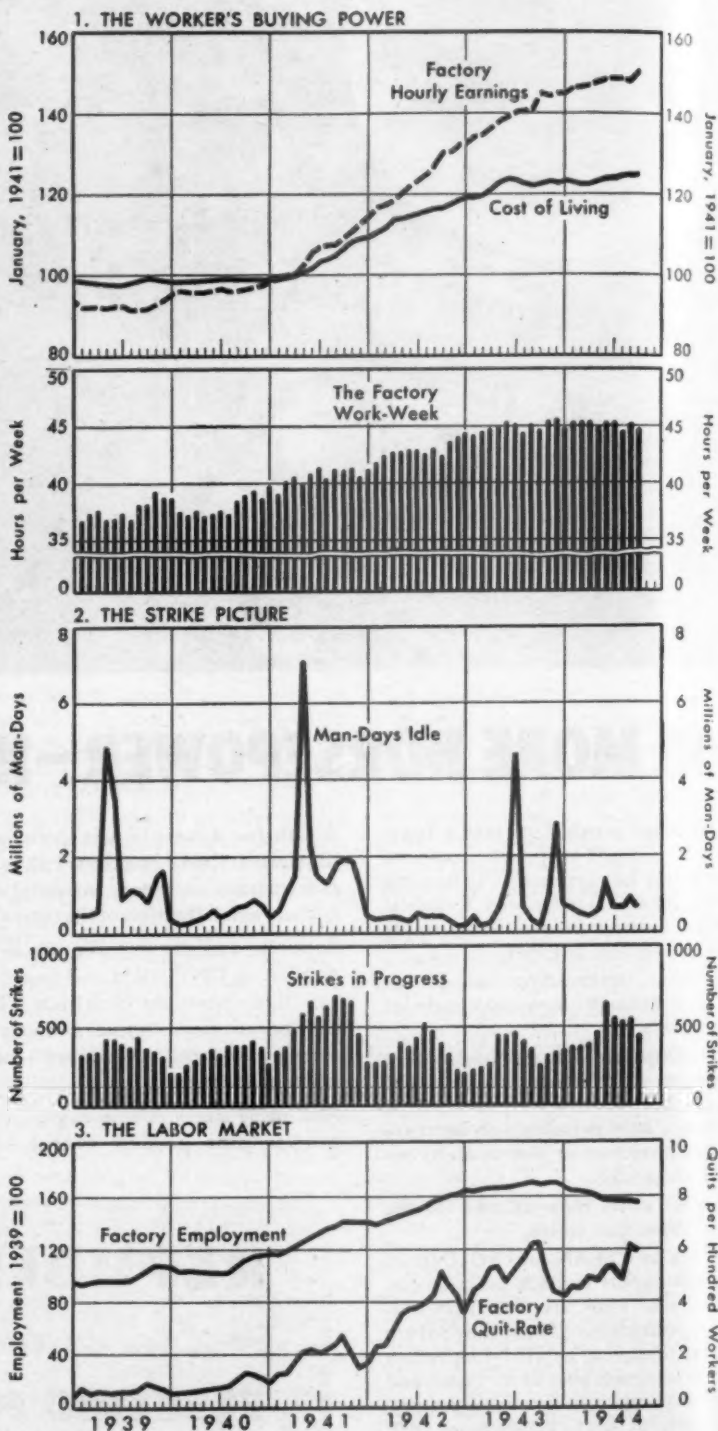
Latest available data for Business Week's quarterly roundup of labor statistics show a deceptive stability in all the important series. The impression of relatively level development, or of only moderate change, which the charts give, will mislead those who take the present profile as a sign of what may be expected in the near future.

This deception is particularly important in the series illustrating the worker's buying power. By the time next quarter's figures are in, hourly earnings will be tilted up sharply by the pay increases—apart from base rate changes—which the National War Labor Board has awarded the steelworkers (page 16). The added compensation benefits in steel will, of course, ripple out to all factory employment thus affecting strongly the hourly earning curve.

**The Worker's Buying Power**—The small but sharp tip of the Factory Hourly Earnings curve reflects premium pay for Labor Day. The average pay level will almost surely recede from that point before moving upward under the propulsion of the new steel wage decision. (Note that this curve does not show base pay rates but is an average of base pay plus overtime pay, divided by hours worked per week.) The cost of living stays on its mid-1943 plateau, and hours worked per week seemed pegged to about the same mid-1943 standard.

**The Strike Picture**—The U. S. pattern on major strikes, which indicates that every other year is a relatively peaceful one on the labor front, is not materially changed by developments in 1944. No important contracts expire between now and the end of the year, so the only significant threat to keeping the 1944 record a good one comes from the possibility of wildcat walkouts which are rarely of long duration.

**The Labor Market**—The gradual decline in factory employment continues. Military separations now account for only a small fraction of industry's net manpower loss. More important factors in dwindling employment rolls are the return of war workers to homes, retirement, and prewar jobs in distribution and service trades. Last year, a high quit-rate did not appreciably affect employment because it represented job shifting within the war industries.



Data: U. S. Bureau of Labor Statistics.

© BUSINESS WEEK

domestic planning dealt with its biggest objective of 1945—improvement and extension of social security and unemployment benefits, expected to come before state legislatures and Congress during the next year.

**Liberalization Urged**—This program calls for extension of jobless insurance to all workers in every state, bringing the maximum benefits to at least \$25 a week, and extending the period for payments to 26 weeks. A.F.L. also urged Congress to extend social security to federal, maritime, and other groups of workers.

## TELEPHONE STRIKES ENDED

The explosive strike situation which threatened to disrupt the nation's telephone service last week (BW—Nov. 25 H, p. 112) has quieted down but by no means disappeared.

Within three days after telephone operators in 31 Ohio cities and in Washington and Detroit went back to work and sympathy strike votes were withdrawn in Chicago, New York, and western Pennsylvania, some 600 long distance telephone operators in Philadelphia voted to strike if their demands are not met within 30 days.

The action, as in the other cases, was a move in the play that the National Federation of Telephone Workers is making to force wages up and to gain representation in Washington for independent unions.

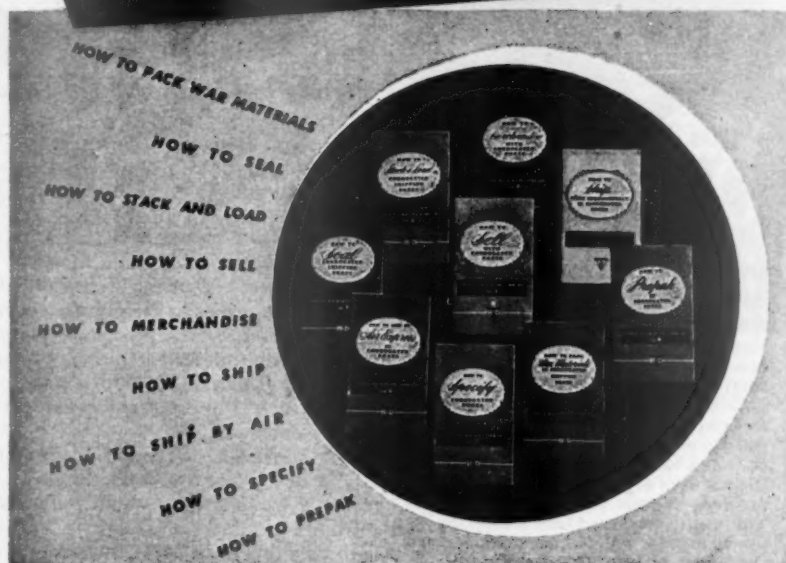
On a rough average, telephone workers make around \$21 a week less overtime, which is approximately 25% more than they drew in 1941. The professed grievance of the operators is that girls shifted from their home exchanges to busier ones are paid cost-of-living bonuses.

The National War Labor Board referred the Ohio dispute to the regional war labor board at Cleveland, but the strikers dramatized the telephone workers' case so that they may be one of the first major groups to benefit if NWLB revises its substandard wage policy in pending textile worker cases.

## TURKEY WITH THE FOLKS

Turkeys were scarce and not cheap. Anyway, the plant was going to work as usual Thanksgiving Day. So the employee-operated commissary at Lockheed Aircraft Corp., Burbank, Calif., decided to let workers' families eat with them that day. Menu—fruit cup, turkey with all the trimmings, new peas, potatoes, pumpkin or mince pie, plum pudding. Price—\$1 to adults, special 70¢ plate for youngsters. To serve three shifts, dinner started at 8 a.m. on Nov. 23.

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## Chicago Center

University will promote industrial relations research and study. One-half of budget already has been subscribed.

The University of Chicago's ambitious program for an industrial relations center is about to become a reality.

• **Halfway to Goal**—Last week the university announced that more than 50% of the center's five-year overhead administration expense budget has been raised by a low-pressure campaign of two directly interested faculty members. The goal is \$150,000, in sums of \$2,500 each from 60 employers and labor unions.

The university has two major interests in developing the center. Selfishly, it wants to keep its assorted industrial relations research programs in touch with reality and with the principal workers in the practical fields with which this research is concerned.

• **Community Contribution**—But also the university sees the task of the industrial relations center as part of its community responsibility. It believes that it can make a substantial contribution by educating employers, union officers, and government labor agency officials for more effective working together.

It points out particularly that much of the schooling which has been open to union people in this field has been left-wing because radical groups have been alert to increase their influence. Chicago sees its opportunity to conduct an objective program for union people, neither radical nor reactionary, but completely realistic.

• **Training Future Teachers**—Unions have been putting heavy pressure upon legislatures, especially in the Middle West, to develop in tax-supported colleges programs which will serve labor as directly as their schools of agriculture and of business administration serve farmers and employers.

As a privately endowed university, Chicago sees its opportunity to train scholars who can help in the development of sound, impartial programs in the state universities.

Several universities have been active for years in the field of industrial relations, including Princeton, Harvard, Wisconsin, and M.I.T.

• **Integrating the Efforts**—The University of Chicago has several long-established but hitherto unrelated programs in this field. The new center will integrate activities of the university's

schools of business and law, and departments of economics, sociology, anthropology, political science, education, psychology, and psychiatry.

Heading up the job for the university are two men well seasoned in practical industrial relations. Frederick Harbison, executive secretary, went from Princeton to Chicago and recently has been on leave while doing government work. Robert K. Burns, codirector, is chairman of the newspaper commission of the National War Labor Board.

• **Joint Planning**—Working with the men is a faculty panel of 25 and a panel (now in process of formation) of 50 men from management, unions, and government labor agencies. Selected groups from the two panels will plan the center's specific programs.

Four years ago the business school the university offered a conference group course in personnel administration for executives below the top level of management. This course is currently in session.

• **First Scheduled Course**—Plan of the expanded program is to offer seminars of similar scope for top level management men. The first course scheduled for early 1945, is "Methods and Procedures in Collective Bargaining."

A parallel series for labor men

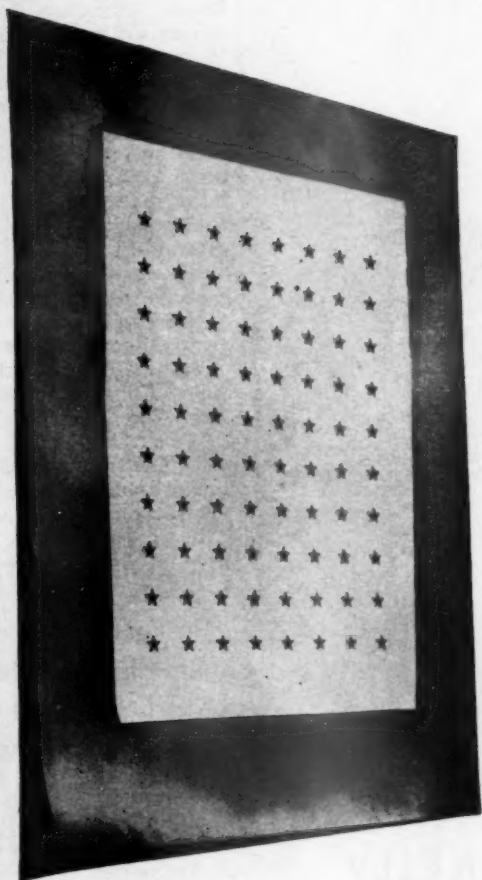
## A.F.L. INVADES STEEL

The last exclusive province of the C.I.O. was invaded last week when the Geneva Steel Co., U. S. Steel Corp. subsidiary in Provo, Utah, signed a contract with A.F.L.'s Metal Trades Council. In every other one of the fields in which C.I.O. unions operate they compete with a rival A.F.L. organization, but, until Geneva signed with the federation, the A.F.L. had no foothold in the steel industry.

With the prospect of postwar jurisdictional warfare to maintain membership in the face of declining employment, the A.F.L.'s entry into steel may well indicate a new area of interunion conflict.

A.F.L.'s agreement with Geneva is the result of a National Labor Relations Board election in which the federation polled 932 votes to the C.I.O.'s 874. The contract establishes procedures for settling grievances; concerns holidays, overtime, seniority; and provides that A.F.L. craft unions keep their separate identities in a plant-wide council.





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scheduled to be running by mid-1944. Besides collective bargaining, the courses will cover "Job Evaluation and Wage Policies" and "Social and Economic Aspects of Industrial Relations."

• **How It Divides**—The center will engage in four major activities: (1) conferences and seminars; (2) specialized library; (3) research; (4) publication. Of these, the first is for the enrolled representatives of management, labor, government; the third and fourth broadening the university's research program; the second, for both purposes.

Nine organizations are financing a group of management researches now under way. These contributors are: Container Corp. of America; Goodrich Mfg. Co.; Libby, McNeill & Libby; Link-Belt Ordnance Co.; National Restaurant Assn.; Sears, Roebuck & Co.; Sorenson-Manegold Co.; Visking Corp.; Western Shade Cloth Co.

## Beck Challenged

Seattle taxi drivers rebel against failure of teamster local to hold election of officers since 1941. Wildcat strikes staged.

Dave Beck, czar of the A.F.L. Teamsters in eleven western states and aspirant to the international presidency of that union, last week faced serious challenge, and right in his own bailiwick—Seattle.

• **Demanding Election**—Nearly a third of Seattle's 800 taxicab drivers participated in brief wildcat strikes in defiance of Beck's orders. Late in the week they debated forming an independent union or affiliating with the C.I.O.

What prompted the demonstration was the insurgents' complaint that there has not been a meeting or an election in their union since December, 1941, and that they are victims of taxation—union dues—without representation.

• **By Remote Control**—The uprising caught cherry-cheeked Beck out of the city, at the National A.F.L. convention in New Orleans, where he represented his international as a vice-president. From New Orleans, Beck threatened the insurgents with trial and expulsion.

The union (Local 465) has a close shop with all Seattle cab companies.

Beck's first move was to name Fred Brewster, his chief lieutenant, as trustee for the taxicab local. Brewster immediately telephoned orders to Gordon Lindsay, business agent for another Seattle local, to take over as acting trustee until Brewster returns.

• **For Gas Conservation**—Beck announced in New Orleans that the reason



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no union meetings had been held was because members had voted not to meet for the duration due to the gasoline shortage.

The strike followed a few hours after B. Irving Bowen, business agent of the taxicab local, charged at a meeting of the Seattle city council, that some cab drivers are guilty of illegal practices. He hinted that policemen were bribed by cab drivers desiring certain stands in the city.

## UNEMPLOYED ROLLS MOUNT

Although war plants in the Los Angeles area are short nearly 20,000 workers, more than 25,000 men and women in Los Angeles County are collecting about \$500,000 a week from California's \$578,000,000 unemployment insurance fund.

Confronted with this seeming paradox, the Los Angeles Board of Supervisors, county governing body, has called on California officials to smoke out work slackers among the 25,000 receiving unemployment benefits.

In September idle insurance recipients in the Los Angeles area numbered 5,265. This total has increased fivefold in the last two months due to growing cutbacks and layoffs.

## Antistrike Test

Teamsters' challenge of Connally-Smith law may go to Supreme Court if verdict goes against the union.

Constitutionality of the strike notice clause of the War Labor Disputes Act has been upheld in a decision in the U. S. District Court of Baltimore, opening the way for a possible test of the law in the U. S. Supreme Court.

• Teamsters Sued—The decision, handed down by Judge William C. Coleman, was in connection with a \$500,000 damage suit brought by the James Gibbons Co. of Relay, Md., against the International Brotherhood of Teamsters, Chauffeurs, Warehousemen & Helpers of America (A.F.L.), its Local 355, and Harry Cohen, Baltimore labor leader.

The company alleged that a strike was called against it last June 7, without the formality of the 30 days' notice required by the law (BW—Jun. 1943, p110) and without an election to determine whether a majority of the company's employees wanted to have the



## CATCHING UP

At Milwaukee's Marquette University, Rev. Peter A. Brooks instructs a class of union electricians in the science of electronics. Taking the unique six weeks' course are 80 members of the A.F.L.'s International

Brotherhood of Electrical Workers who were chosen for advanced schooling by local organizations all over the U.S. Financed by the brotherhood, their postgraduate work represents a campaign by the union to keep its members abreast of the great wartime advancements in their trade.

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union serve as an agency for them in collective bargaining.

● **A War Firm?**—The union replied that Gibbons—a contracting firm engaged in building roads, highways, and airports for the federal government and various states, counties, and municipalities—was not a war contractor as defined in the act, and therefore notice was not required.

It also argued that the law, in itself, was unconstitutional. At a preliminary hearing leading up to Judge Coleman's ruling on this point, the local union did not present its arguments against the validity of the act, but announced that it would do so if it loses the trial verdict.

● **Authority Sustained**—Judge Coleman then ruled that Congress had the authority to impose what he described as the "rather mild" provisions of the act.

Since constitutionality of a federal law is involved, the union may appeal any adverse decision in the damage suit directly to the Supreme Court.

## Ship Wage Issue

nions apply heat on the White House for the rest of that 13.1% raise shipyard workers were to get in 1942.

Among wage questions President Roosevelt must settle for the National War Labor Board is that of an increase for shipyard workers.

● **They Want the Rest**—It differs from several current pay advance demands in that primarily the unions are advancing their claims for the remainder of an increase due before announcement of the President's hold-the-line program in the fall of 1942 (BW—Oct. 10 '42, p15).

History of the wage case dates back to the national shipbuilding conference in Chicago in May, 1942. At that time, claim the shipyard unions, employees were entitled to a 13.1% increase (15¢ to 16¢ an hour) in pay under a master contract tied to the cost of living. The contract, between the A.F.L. Metal Trades Council and the shipbuilders, also is signed by WPB, the Maritime Commission, and the Navy.

● **Inflation Seen**—In a message to the 1942 Chicago conference, Roosevelt outlined his seven-point stabilization policy and said full application of the wage increases allowed under the contract would be irreconcilable with the anti-inflation program.

As a result, the unions accepted a compromise raise which amounted gen-



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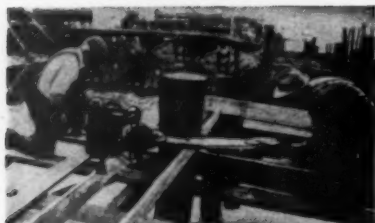
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erally to 8¢ an hour (BW-Jul. 3 p15). Shipyard workers in Portland Ore., however, already drawing \$ an hour, got only 5¢.

● **Appeal to White House**—Now unions want at least the 7¢ or 8¢ an hour more which the workers were denied at Chicago 2 1/2 years ago. The argument was detailed in a telegram sent to the White House Oct. 17 kept secret until early this month.

Efforts to get the shipbuilding stabilization committee to act on a review, as provided at the Chicago conference, have been in vain, the gram signers charge.

"Our people now feel that the program laid down has failed to achieve its purpose," said the message. "In fact, a part of the program is almost the same as one of the seven points that have been the line."

## CLEAR ROAD FOR LEWIS

John L. Lewis will be unanimously reelected president of the United Mine Workers Dec. 12 for a four-year term as a result of a decision of Judge Alan Goldsborough in the U. S. District Court in Washington, D. C., not to order the name of Ray Edmundson, former president of the Illinois district of U.M.W., added to the ballot. Goldsborough said that an attempt by the court to interfere in such internal union matters would result in "utter chaos."

The court's decision ended Edmundson's attempt to build permanent opposition to Lewis in the union (BW-Sep. 9'44,p102). Edmundson had no hope of beating the 64-year-old mine chief who he had hoped to make a good show in going down to defeat. The decision had the effect of affirming the U.M.W. ruling that Edmundson was in no standing for nonpayment of dues. Edmundson had quit as Illinois district president to wage the fight.

Customarily U.M.W. elections have been for a two-year term, but at the election the term was increased to four years. Lewis can retire under the union retirement plan when he reaches 65—must retire at 70 unless given permission by the union executive committee to remain in office after that age.

## TRUCK DRIVERS YIELD

Delivery trucks are rolling in Boston again, but the issues which caused the nine-day walkout of drivers and imperiled the city's food supplies (BW-Nov. 25'44,p116) remain to be settled.

Refusal of the regional war labor board to lend its mediatory services until work was resumed, and threats by other agencies that the men would be blacklisted and their draft classification

# Forward

## WITH THE 6<sup>TH</sup> WAR LOAN!



Official U. S. Marine Corps Photo

### *Keep Your Plants Quota* "OUT FRONT!"

Victory depends upon materials—as well as men! To keep our American forces "closing in" overseas, you and every other manufacturer here at home must keep on making "Out Front" War Bond Quotas!

This means action now on every point in the fighting 8-Point Plan to step up Payroll Deductions. For instance, have you a 6th War Loan Bond Committee, representing labor, management and other important groups in your company? Selected Team Captains

yet—preferably returned veterans? If so, have you instructed them in sales procedure—and given each the Treasury Booklet, *Getting the Order*?

How about War Bond quotas? Each department—

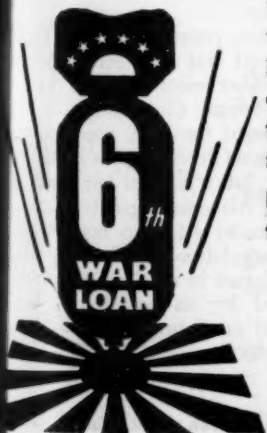
and individual—should have one! Assigning responsibilities is vital, too! Have you appointed enough "self-starters" to arrange rallies, competitive progress boards and meeting schedules? Are personal pledge, order or authorization cards printed, and made out in the name of each worker? Planning for resolicitation near the end of the drive? Your State Payroll Chairman is ready now with a detailed Resolicitation Plan. And, have you contracted for space in all your regular advertising media to tell the War Bond story?

Your positive Yes to all points in this forward-to-victory 8-Point Plan assures your plant meeting an "Out Front" Quota in the 6th War Loan—and speeds the day of unconditional surrender!

*The Treasury Department acknowledges with appreciation the publication of this message by*

## BUSINESS WEEK

*This is an official U. S. Treasury advertisement—prepared under the auspices of Treasury Department and War Advertising Council.*





# For a head start on the field . . .



*Plan on **GAS**  
when Re-converting*

The industrialist who includes Gas in his post-war planning will be far ahead of competitors in peacetime manufacturing. In war, Gas has proved itself the superior industrial fuel in thousands of plants. In peace, Gas is the recommended fuel for profitable production.

Gas is flexible—adaptable to any production line. Gas is a high speed, precision fuel—desired temperatures are quickly obtained and can be maintained as long as needed. Gas is economical—lowers unit and overall costs. Gas is clean—improves working conditions.

To make Gas work best for you, the research of equipment manufac-

turers, experimental laboratories and the American Gas Association is constantly producing new and improved methods of application—often representing spectacular advances. Consult the Industrial Engineer of your Gas company—he can give you specific data.

**Buy War Bonds . . . Help Speed Victory!**

★ ★ ★

**AMERICAN GAS ASSOCIATION**  
INDUSTRIAL AND COMMERCIAL  
GAS SECTION

420 Lexington Avenue, New York 17, N. Y.



tions reviewed, combined to end the open revolt against leaders of the A.F.L. Teamsters Local 25.

All but 14 of the striking drivers were reinstated. The 14, who constituted a rank-and-file committee during the flareup, were suspended, and now must stand trial before the local officers against whom the revolt was directed.

Cardinal issue in the strike was refusal of the local officers to permit, for the duration, the regularly scheduled annual elections in the local union, a maneuver which has held them in office since Dec. 7, 1941. This and other questions in dispute are to be discussed by the strikers with the officers.

## RAIL STRIKE ENDED

After a 17-day strike (BW—Nov. 18 '44, p. 112), the 40-mile Chicago, Aurora & Elgin and the 85-mile Chicago, North Shore & Milwaukee suburban electric railroads resumed service last Monday morning.

The Brotherhood of Railway Trainmen and the Brotherhood of Locomotive Firemen & Enginemen had struck to boost to 9¢ an hour the award of 5¢ made by a presidential emergency board last October. They lost.

Neither employer had authority to make concessions in the emergency board's award. The problem eventually resolved itself into finding a face-saving way to let the men go back to work on the terms they had struck against. State Labor Director Robert L. Gordon provided this in the shape of an appeal to their patriotism.

## UNION CONTROLS UPHELD

Labor organizations so vitally affect the public that they should be regulated by law, and their business agents should be subject to the same controls as real estate agents. So declared the Florida Supreme Court in upholding a 1943 law requiring union agents to obtain state licenses and unions to make reports showing their names and locations, and the names and addresses of officers.

The decision presages another U.S. Supreme Court test of a state's police powers over labor unions, for the A.F.L. is certain to appeal. Only last week the union persuaded the high court to review an Alabama decision upholding the Bradford act, labor control law enacted by the 1943 Alabama legislature.

The law under attack is one of several labor regulations passed by the Florida legislature in 1943, and recently supplemented by an anticlosed shop constitutional amendment approved at the general election Nov. 7 (BW—Nov. 18 '44, p. 118).

# THE WAR AND BUSINESS ABROAD

BUSINESS WEEK  
DECEMBER 2, 1944



**Don't miss the full significance of the controversy which deadlocked the International Civil Aviation Conference in Chicago last week (page 8).**

Behind Britain's stubborn fight to allocate both international air routes and traffic quotas equally between American and British airlines is a growing fear in London that if no controls are established, U. S. lines might run away with the lion's share of the business in the first few years after the war.

**This same attitude will dominate Britain's stand at each forthcoming international conference on postwar commercial policy.**

U. S. delegates, when they prepare to negotiate new pacts on shipping, foreign trade, international investment, should be prepared to meet strong British demands for allocation of spheres of commercial influence.

The British are worried over the future of their foreign trade, partly because Britain is "broke" and partly because "made in U. S. A." is all over the world on fighting equipment and basic supplies.

**Our goods have proved to be both practical and popular, and many British industries are disturbed about it.**

To offset this war-born advantage, especially while industry is reconverting to peacetime production and the foreign trade community is attempting to reestablish the tight producer-shipper-insurer-banker pattern that has proved so profitable to Britain, the British are trying to tie up the world in neat areas in which foreign trade will be rigidly allocated.

**London is already negotiating along these lines, with the Empire, a western European bloc (Holland, Belgium, France), and Africa topping Britain's list of special spheres.**

**Opposition to the British plan has already developed in several quarters.**

**Russia**, by forcing recognition of its claim for special concessions in Iran, is boldly countering Britain's dominant influence—both economic and political (BW—Nov. 18'44, p116)—not only in Iran but in the whole Middle East (page 113).

And **Scandinavia**—despite close prewar ties with Britain and the sterling bloc—has flatly refused to join any closed bloc of western European nations for fear of irritating both Moscow and Washington.

And the **U. S.**, at least at the business level, is vigorously bucking Britain's policy, though there is some concern lest the President be persuaded at the Big Three Conference to compromise with Churchill, ostensibly on a temporary basis to meet an emergency.

Administration measures to meet this British challenge of closed circuits on world trade are just beginning to be formulated. They can be expected to include the introduction of legislation to:

(1) **Repeal the Johnson act** (which prohibits credits for countries in default on first World War loans).

(2) **Increase** (at least to \$3,000,000,000) **the lending power of the Export-Import Bank** so that it can help act as a stopgap until the international banks proposed at Bretton Woods can be established.

(3) **Provide**, as soon as the war ends, **for the complete settlement** (through a large-scale write-off) **of all outstanding lend-lease obligations.**

The National Planning Assn., in a new study of postwar foreign trade opportunities (page 120), suggests that the U. S.—if it acknowledges its re-

# THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK  
DECEMBER 2, 1944

sponsibility as the world's only great credit reservoir—**must be prepared to export capital after the war (on a long-term, low-interest basis) at the rate of \$3,000,000,000 a year.**

It is overoptimistic to expect that foreign trade will expand importantly until after the war in Europe ends, but plans are now getting under way to boost volume rapidly at the end of hostilities.

Military release of only enough harbor facilities in France to allow the importation of 10,000 tons a day of civilian goods indicates how puny this trade is likely to remain until more port facilities can be let go.

On the other hand, though Washington's announcement that businessmen can visit France has proved to be virtually meaningless, **the American Embassy in Paris is now instructed to provide on request information on the status of American interests in France.**

**At the same time, restrictions on commercial and business communications with liberated France have been lifted.**

The report that Arthur Rank, London movie magnate, is buying into Odeon Theatres, Ltd., of France might be taken as one small indicator that, despite their own country's need of foreign loans, British interests intend to pursue their traditional policy of lending abroad and that they will rush the "sterling bloc in western Europe" project.

Despite earlier plans to build all postwar prefabricated houses at home, **British housing experts are making an unexpected survey of U. S. manufacturing facilities and may place sizable orders in this market.** The British are keeping still about this, hoping to get the business under the lend-lease wire.

**And two Turkish buying missions—backed by no less than \$130,000,000 of exchange accumulated during the war—are due in the U. S. to buy railroad equipment and replacement machinery for the government's steel mill and for tobacco factories.**

Imports of olive oil from Spain will be resumed with the approval by Madrid of export licenses for 3,000 tons for private importers in the U. S.

However, the Spaniards are holding the price so high that importers will probably be forced to take a loss on the business unless ceilings in the U. S. are lifted.

Although arrangements are almost complete for the importation of olive oil from Italy, shipments have not yet begun. **Because the Germans systematically destroyed all large processing plants, only household presses are operating and quantities available are still absorbed locally.**

Publishers who are being invited to participate in an exhibit of technical publications, in Moscow, have learned that the Russians have just published "English-Russian Dictionary on Chemistry and Chemical Technology," a few copies of which are available for \$2.50 at the Russian-operated Four Continents Book Store, New York.

**Automobile manufacturers, quietly surveying potential postwar markets, noted last week that Argentina—which has bought as many as 50,000 cars and trucks in a single year—received fewer than 15,000 cars in 1941, a few more than 6,700 in 1942, and a bare 478 last year.**

Wartime quota assigned to allied Brazil for 1945 is 10,000 vehicles.



# Iranian Interlude

Struggle over control of oil, sidetracked by war, may be ended when peace comes by giving equal access to resources.

For more than 2,000 years, Iran has been the battleground of empire builders.

Not since the fall of the Safavi dynasty in 1736, under the combined assault of Peter the Great of Russia and the Turks, has Iran been free of foreign domination.

Only in this historical perspective can the current squabble over oil in Iran be viewed intelligently.

**Issue Confused**—Last month Soviet, American, and British bidders for oil concessions in Iran were told to sit down and relax until the war ends. Popular surprise at Soviet interest in a foreign oil concession has served to confuse the issue. Moscow is accused of upsetting the well-laid plans of American and British negotiators by its demands, and subsequent acrimonious attacks on Iran in the Soviet press reflect Moscow's concern in the matter.

But American reports of the affair have also confused the sequence of events. According to former Prime Minister Said, negotiations with the three powers had been in progress "for many months" and were broken off when U. S. specialists submitted a draft plan unacceptable to the Iran cabinet, which promptly resigned at the end of August.

On Sept. 2, the new cabinet determined to postpone decision until after the war. A Soviet economic mission arrived in Tehran Sept. 23.

**Only an Interlude**—Thus ended, for the time being, another episode in the growing drama of oil imperialism—most recently revived by Washington's attempted coup in British-dominated Saudi Arabia (BW—Mar. 11 '44, p. 22).

But Iranian oil fields are probably the richest in the world, and reconsideration of the concession question later on will revive old and new economic and strategic interests.

**Spheres Established**—For more than a century Iran was the pawn of Moscow and London. The Russian czars dreamed of expansion to the Persian Gulf, and east to India. Britain guarded this vulnerable gateway to its eastern empire jealously.

The Anglo-Russian agreement of 1907 divided the country into a Russian sphere, patrolled by Cossack brigades, an Iranian sphere policed by Swedish mercenaries, and a British

sphere guarded by British rifles (map). In the world war, Britain and Russia allied to defend Iran against Turks, Germans, and local bandits, to prevent German subversion of Afghan and Indian allegiance to Britain. But oil was also at stake, and only British force protected the flow of oil 150 mi. from the Iranian fields to the Abadan refineries near the Persian Gulf.

**Area Returned**—When all of the Middle East was rocked to its foundations by the upheavals of the World War, and particularly by the revolution in Russia, Iran was simultaneously occupied by British troops and remnants of czarist divisions, and a revolution in the northern provinces produced a Soviet Republic of Gilan.

In 1918, Soviet Commissar of Foreign Affairs Leon Trotsky had repudiated the Anglo-Russian partition agreement. And in 1920 only the wildest revolutionaries recommended support of Gilan, and Lenin silenced these hot-heads and was instrumental in returning northern Iran to Tehran control.

But northern Iran—like much of Chinese Turkestan, Sinkiang, and Mongolia—is economically linked with the Soviet Union because the access of these areas to any market other than Russia is difficult. (Even after the completion of the Trans-Iranian railway, Caspian Sea ports handled a greater volume of Iran's exports than Persian Gulf ports.)

**Independence Unlikely**—The crucial point of all considerations of Iran's future must be its political and economic stability. It has never been, and probably will not soon become, an independent, sovereign, democratic power as guaranteed by the Tehran declaration in December, 1943.

Foreign loans have been the prop on which one shah after another has relied. (By 1920, British and Russian loans totaled more than \$60,000,000.) Between a quarter and a half of government expenditures are met by royalty payments of the Anglo-Iranian Oil Co., Ltd. Important expenditures are made on military police who attempt with indifferent success to keep bandit tribes



Iran's oil has long caused friction among foreign states. By the 1907 Anglo-Russian agreement (dropped in 1918), Iran was partitioned for exploitation, but only British oil concessions (shaded area) were developed. U. S. companies want rights in south-east Iran; the U.S.S.R.—in an un-

precedented move for that nation—is angling for rights in the five northern districts. So far, only U. S. wedge in this Middle East oil pie is in Kuwait, Bahrein, and Arabia. A post-war oil compact may give all foreigners equal access to this, the world's richest unexploited oil field.

in check and protect commerce. Another slice of Iran's budget flows to corrupt administrators.

• **U. S. Aides Frustrated**—In 1911, the United States sent W. Morgan Shuster to Iran as financial adviser, and virtual economic dictator. The Belgian government handled Iran's customs department at that time. Shuster was pressured out by Russia. After the war, Britain supplied financial aides at Tehran (1920).

From 1922 to 1927, and again from 1941 until June, 1944, Dr. Arthur C. Millsbaugh served for the United States as administrator general of finance, and each time was frustrated in his attempts to bring order out of chaos in a politically retrogressive atmosphere. It is sometimes forgotten that although Dr. Millsbaugh was a petroleum adviser to the U. S. State Dept. from 1920 to 1922, Britain succeeded during his first stay in Iran in squeezing out the two American firms, Standard and Sinclair; which were then prospecting for oil.

• **Caused by Rivalries**—The recent postponement of oil negotiations in Iran, therefore, reflects a long-standing rivalry

of foreign oil interests over an asset that is loosely held by an unstable government. At present Soviet troops occupy the area north of Tehran, in which the U.S.S.R. seeks concessions; British troops guard the southern area (U. S. companies seek concessions in southeast Iran); and American troops are non-combat, engineer forces concerned with expediting transit of lend-lease supplies to Russia (BW—Oct. 30 '43, p. 48).

• **Hope for the Future**—Whatever the outcome, Iran's claim that concessions given now would be viewed as obtained under duress is considered correct by unbiased observers.

When the Big Three finally settle accounts with Iran (as promised in the Tehran documents), the economic reparations for disruption of Iran's economy during the war may provide for guarantees of progressive government reforms of a political and economic nature, and equal treatment of foreign interests as far as oil is concerned—a guarantee that would assure the United States a fair share in any development program, as free as possible of any aspect of political domination.

## South Africa Plans

Government will seek high productivity and maximum exports but seems resolved to make industry stand on own feet.

JOHANNESBURG — Satisfaction with the startling expansion of its industries has not fogged the Union of South Africa's view of the future, or lessened concern over the problem of retaining the production toe hold gained during the war.

• **Converted Quickly**—At the outbreak of war South Africa had no armament factories, but within six months converted plants were turning out howitzers and other guns, armored cars, and munitions in addition to uniforms, shoes, and food for export to war fronts.

South Africa's chief industries, gold and diamond mining, are following opposite but expected courses. Gold production is down, and rising costs have brought marginal producers to the verge

## 1950 Imports and Exports—A New Projection

One of the most significant contributions made by the National Planning Assn. in its new study, "America's New Opportunities in World Trade," is a careful scrutiny, item by item, of what this country's imports are apt to be in 1950 under full employment (page 120).

• **Impact Is Estimated**—This projection is based in part on the relationships between imports and total U. S. business activity in past years. But in addition, authoritative estimates have been made of the competitive impact (1) of new synthetic industries, as on silk and rubber, and (2) of the depletion, relative to needs, of basic resources, as on petroleum and lumber. N.P.A.'s figures assume no change in our policies on tariffs, subsidies, stockpiling.

Taking the quantities of various goods figured to be imported in 1950, at full employment, and evaluating these at 1941 prices, N.P.A. arrives at an import total of \$5,000,000,000, as against 4.4 billions in 1929, and 2.3 billions in 1939 (average import prices in 1939 were about 35% below those in 1929, and those in 1941 were up almost midway between the levels of the two previous years).

• **Oil Leads Gains**—Here are some of N.P.A.'s import projections, for the

more important commodities (in millions of dollars):

Commodity	1929	1939	1950
Finished manufactures	\$770	\$295	\$800
Petroleum	97	42	750
Woodpulp & newsprint	248	201	400
Fats & oils	180	84	250
Coffee	302	140	180
Sugar	209	125	170
Rubber	241	178	160
Meat & products	62	48	150
Wool	39	22	120
Tin	92	71	110
Burlaps	77	28	100
Lumber	44	20	100
Diamonds (jewel)	52	35	100
Hides & skins	137	47	70
Copper	154	44	60
Silk	427	121	50

It is clear that manufactures will continue to play a minor and relatively diminishing role in our import picture. The biggest changes are shown up at opposite ends of the table—a huge rise in oil and a precipitate drop in silk. Some of the other estimated changes in value are primarily due to differences in prices. Thus, 55% more coffee may be imported in 1950 than in 1929, but in 1941 prices, the value would be down 40%; on the other hand, tin imports are figured 20% higher than in 1929, on only 8% more tonnage. What N.P.A.'s sample list of 44

commodities does show, in value and tonnage, is the probable new lines of American import trade.

• **Probable Trends**—After estimating the import total, and projecting what now seem the probable trends in "invisible" income items—tourist travel, interest payments, long-term loans, shipping balances—N.P.A. figures that we could sell 7 billions of exports to the rest of the world, as against 5.2 billions in 1929 and 3.3 billions in 1937. But again, the composition would probably be changed (the figures in millions of dollars):

	1929	1937	1950
Agricultural goods	\$1,693	\$797	\$1,000
Machinery	607	479	2,000
Automobiles & vehicles	591	410	1,200
Other metals, manufactures	537	502	1,100
Petroleum products, chemicals, wood & paper, textiles, etc.	1,729	1,111	1,700

With smaller exports of farm commodities, and a stabilized total in other manufactures, the "heavy goods" industries—machinery, autos, metals—would have a 150% jump in export volume even over 1929, and would account for 60% of the 1950 total.

# HOW TO UNITE Scattered Factories



## FRUEHAUF TRAILERS DO IT FOR THOMPSON PRODUCTS

SIX FRUEHAUF TRAILERS . . . working continuously . . . literally form a "conveyor belt" between the plants of Thompson Products, Inc., in Cleveland.

Thompson has six factories scattered over a 5-mile area in the industrial section of the city . . . plus the huge new Thompson Aircraft Products plant on the outskirts. And, with volume exceeding 100 million dollars a year, there's a lot of material to be handled . . . an average of 2½ million pounds a month to be exact.

Maintaining precise schedules, the Trailers keep material flowing smoothly between the plants. In addition, they handle depot distribution of finished parts . . . over 90% of which leave Cleveland by motor freight.

Thompson officials will tell you that without the speed and flexibility of Trailer hauling, they could never have attained the record production which has won them the coveted Army-Navy "E". In their case . . . as in thousands of others in more than 100 different kinds of business . . . Truck-Trailers are doing work that couldn't be done as well, if at all, by any other method.

World's Largest Builders of Truck-Trailers

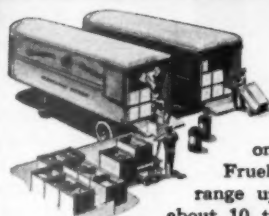
**FRUEHAUF TRAILER COMPANY • DETROIT**

Service in Principal Cities

Buy War Bonds



**Fruehauf Trailers**  
Engineered Transportation



## TRUCK-TRAILERS Carry Big Loads

Finished parts are stacked on skids and loaded on a Fruehauf Trailer. Load weights range up to 16 tons . . . average about 10 tons . . . yet they're pulled by trucks which are designed to carry only a fraction of that weight. The Truck-Trailer hauls 6 skids . . . trucks alone previously carried only two. The second Trailer is being loaded with processed parts about to go to another plant for finishing operations. The loaded bins weigh up to 1500 pounds each . . . and 22 of them ride in one Trailer.



## MANEUVERABILITY A Big Asset

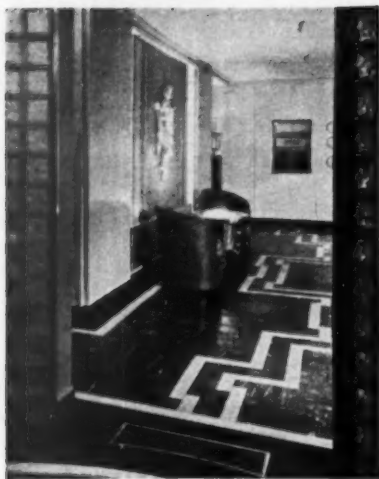
To reach certain loading docks in the Thompson plants, the Trailers must squeeze up narrow alleys that couldn't be negotiated by ordinary trucks of considerably less capacity. Hinged-in-the-middle, a Truck-Trailer turns in the same radius as the short-wheelbase truck which pulls it. In fact, at one of the Thompson docks, the vehicles—measuring 30 feet in length—completely turn around within a 25-foot circle. This maneuverability in tight places also means ease of handling in congested city traffic.



## "SHUTTLE SYSTEM" Saves Time and Money

The truck backs in with an empty Trailer . . . "drops" it . . . then couples on to a loaded Fruehauf . . . and immediately starts off on another trip. During loading and unloading, only the Trailers stand idle. The trucks are on the road pulling other Trailers to their destinations. This means fewer trucks are needed—because each is working constantly. And tie-ups of trucks and drivers, during loading and unloading, are eliminated.





## Keep Floor Upkeep Down with **WHIZ** Self-Polishing Floor Wax

It's easy to give floors a waterproof, non-skid, lustrous finish with long-wearing **WHIZ Self-Polishing Floor Wax**! Spread it on and let it dry about twenty minutes—you'll get that famous **WHIZ** lustre without rubbing or buffing. Because *this* finish is water resistant, you can keep it clean by damp mopping with a mild solution of soap and water.



**WHIZ Wax** has superior non-skid properties—an important safety factor. Use **WHIZ Self-Polishing Floor Wax**—the saving in time and labor will be reflected in lower maintenance costs.

**WHIZ Floor Wax** is one of more than fifty Maintenance Chemicals (such as liquid and concentrated soaps, cleaners, floor waxes, metal and furniture polishes, disinfectants, insecticides) made by Hollingshead.

IT'S A



A **Hollingshead** PRODUCT

For name of nearest distributor write Industrial Division  
R. M. Hollingshead Corporation, Camden, New Jersey  
Leader in Maintenance Chemicals

**BUY MORE WAR BONDS**

of shutdown. Diamond production this year, because of continuing demands of industrial users, will match the 1943 high of \$80,000,000.

• **More Farm Equipment**—Agricultural implement plants, which produced 2,000 tons of equipment in 1941 and 13,000 tons last year, are continuing expansion—to the point of meeting half the country's needs of some types of implements.

With the business community ready to back even the most drastic protectionist policy, government officials are investigating the country's economic potentials to determine what expanded enterprises can exist in a competitive postwar climate. For the government is convinced that an expanding world economy depends upon freer exchange of the world's goods than characterized the 1919-1939 period.

• **Must Stand on Own Feet**—Last month's conference of South Africa's Federated Chamber of Industries provided a clew to the future. The government is committed to a program of full employment and high productivity with maximum exports, but is equally determined that industry shall stand on its own feet against overseas competition. An exception may be made for infant industries, but only during their infancy.

Protection will ward off unfair competition and be of a selective nature. It will be subject to government checking, to determine costs and efficiency in protected industries.

• **To Push Exports**—Government policy calls for aggressive promotion of exports and participation in any world economic organization designed to iron out excessive fluctuations in prices and production of raw materials produced in South Africa or required for domestic industries, in an effort to escape one of the chief causes and characteristics of cyclical depressions and booms.

In order better to equip the nation for its role in the world economy, the government proposes to enlarge its technical and statistical staffs, its planning agencies, to create a National Standards Bureau, and to encourage the work of the recently founded Industry Research Body.

## POWER PLANT OPENS

**SANTIAGO**—Exactly on schedule, Chile has dedicated the first section of the \$2,000,000 Pilmaiquen hydroelectric plant, an important unit in the country's 18-year electrification program (BW—Jan. 1'44, p44).

Pilmaiquen, with present capacity of 9,000 kw. (its eventual total will be 48,000 kw.), is actually the smallest of the three projects scheduled for completion before the end of 1945 by the

Corporacion de Fomento de la Produccion (with the financial assistance of the Export-Import Bank of Washington). The new plant will supply power and light to the southern farming and industrial region from Valdivia to Puerto Montt.

Its chief job, however, will be to power a steel mill at Corral and share with textile mills nearby. Next on the construction schedule are the big (\$10,000,000) Suazal project, and a 175,000 hp. plant at Abanico, both due to be finished by the end of 1945.

In addition to materials for construction, now being supplied by U. S. manufacturers, Chile expects its electrification program to increase its need for all types of machinery and electrical equipment from abroad. International General Electric Co. and S. Morgan Smith Co. built the equipment for Pilmaiquen.

## CANADA

### Government Crisis

**Mackenzie King** holds to a middle course on conscription issue and stakes his leadership on vote of confidence.

**OTTAWA**—During the 20 years he has been Prime Minister of Canada (1921-30, 1935-44), the political magnet of William Lyon Mackenzie King has become legendary.

But this week Canadians are wondering if the hat from which he has pulled so many rabbits may not at last be empty. The worst political storm of his career is raging as a result of the resignation of popular Defense Minister James Layton Ralston for insisting that conscription be imposed to raise badly needed reinforcements for Canadian armies in Europe (BW—Nov. 11'44, p117).

• **In the Middle**—Prime Minister King is in a tight spot between a clamor for enforcement of the conscription law and a political promise of no conscription.

When Parliament met last week it was common knowledge that several cabinet members were bending before the gale of popular favor for sending the home defense "zombie" army overseas and were threatening to quit unless the Prime Minister abandoned his stance that only volunteers be sent abroad.

• **King's Predicament**—Cabinet resignations would have toppled the Liberal

Produced by Mackenzie King's retirement, or forced him to face the angry proconscription people of the eight provinces (Quebec excepted) at the polls. His party in the House of Commons might have split and defeated him on the issue.

Reversing his stand would turn the old French bloc in Commons against him, induce resignation of French-Canadian cabinet ministers, and split the country on lingual lines.

**Compromise Offered**—Canadians are accustomed to seeing King extricate himself that they counted on him again. They expected him to pass the buck to parliament and take a neutral position himself. The Prime Minister fooled everyone by compromise.

This is how it works: The zombies he made subject to conscription for overseas service in such numbers and for such times as the government may decree (the initial quota is 16,000).

**But "Volunteers" Welcome**—Ordered to go, and compelled to get going, draftees will have the "privilege" (knowing they're on the way) of volunteering en route to shipside, or even after they're overseas. If all who are compelled to go "volunteer," the Prime Minister will be able to claim fulfillment of his no-conscription pledge, yet still reinforce needs, and justify the split with Ralston who wanted a straight draft.

A law extending conscription to overseas service was passed in 1942 after a popular vote in favor of it. When Prime Minister King met Parliament last week he read letters he had written to Ralston in early November condemning Ralston's recommendation that this draft law be applied. The next day King read to the House an order in council applying conscription as Ralston had proposed, then brought in the new Defense Minister, Gen. "Andy" McNaughton, to explain how, under the order, there might be no conscription. Then King told the House he would ask for a vote of confidence on his war leadership. With the Quebec bloc of 40 members likely to split on the issue, he betting favored a vote for the wily Prime Minister.

**Interest Sharp**—Meanwhile, Canada at large was not taking the squabble disinterestedly.

The score stood as follows: One conscriptionist minister (Ralston) was out, and one anticonscriptionist minister (French-Irish Air Minister Charles Gavan Power) resigned in protest over King's action of last week. Several Liberal anticonscriptionists in Commons crossed the floor" to vote against the government. Some Liberal members were ready to vote against the government for its halfway measures.

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# THE MARKETS

(FINANCE SECTION—PAGE 70)

The short-lived, but sharp, spell of price weakness that characterized New York Stock Exchange dealings about two weeks ago, increasing the uneasiness that had been gradually accumulating concerning the basic strength of current price levels, hasn't returned to plague the market.

● **Gradual Advance**—Instead, stocks generally have since proved able to maintain, with some consistency, a creeping advance that has finally managed to send the Dow-Jones rail stock price average to the highest levels since September, 1937, and has also proved sufficiently potent, in the case of the industrial and utility groups, to wipe out a good part of their recent losses.

However, the performance of the rail stock average was made possible to a considerable extent by the unusual strength in the equity issues of the Union Pacific, Chesapeake & Ohio, and Southern Pacific systems which sent those traditional bellwethers to new seven-year highs; thus far its penetration into new high ground hasn't proved much of a sensation.

● **Volume Is Lagging**—Daily trading volume on the Big Board has been consistently staying at levels well below the million-share mark, and the financial district apparently has no intention of according too much significance to the rail break-through unless the industrial average, still well under its July bull market high, can soon show some comparable strength.

Some of the Street's stock market students are somewhat impressed by the

market's ability to show a rally at a time when so much near-term bearishness is present in brokerage circles. This action is beginning to suggest to the group that perhaps all the adverse possibilities ahead have been weighed and accepted by an increasing number of investors and that the market's recent plodding progress may prove the start of a worth-while move to higher levels.

● **Caution Continues**—However, few are yet convinced sufficiently to recommend that clients start using the cash reserves they have been building up in recent months. Still worrying them is the fact that prices remain definitely within the range at which the market has met, and has been unable to conquer, persistent liquidation on many occasions since last summer.

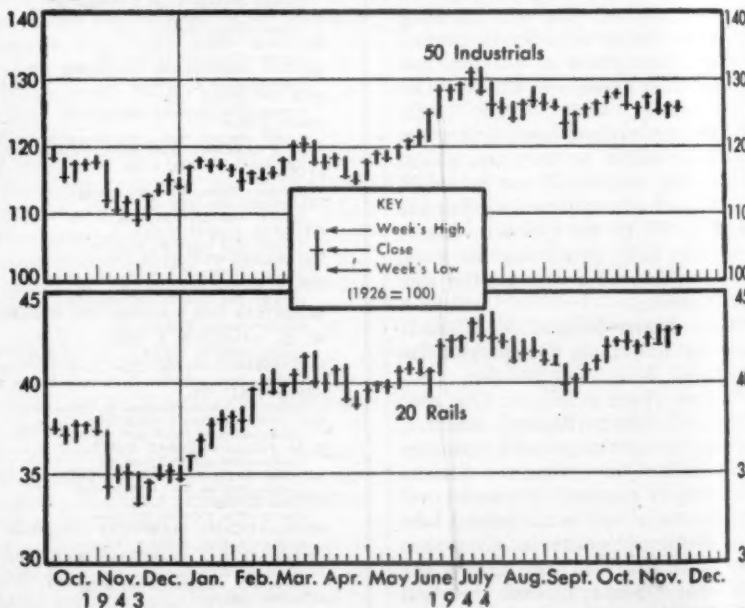
Therefore, until the stock market shows a convincing ability to crash through this barrier, Wall Street generally, it would seem, is not inclined to switch to the bullish side and quite a little short-selling is still said to be in progress.

## Security Price Averages

	This Week	Month	Year
	Week Ago	Week Ago	Week Ago
<b>Stocks</b>			
Industrial ...	125.8	126.1	125.8
Railroad ....	43.0	42.9	42.0
Utility .....	54.7	54.4	55.5
<b>Bonds</b>			
Industrial ...	120.3	120.6	119.8
Railroad ....	111.8	111.1	110.3
Utility .....	116.6	116.6	117.0

Data: Standard & Poor's Corp.

## COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

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# THE TRADING POST

## Definitions—and Shipping

Words and phrases sometimes take on special shades of meaning that do not fit the formal dictionary definitions. Two phrases, for example, that are subject to innumerable interpretations are "private enterprise" and "subsidies."

You know what they mean, and I know what they mean, but that is no guarantee that we agree any more than Basil Harris, President of United States Lines Co. of New York, and Walter Siegerist, President of the Medart Co. of St. Louis.

Last summer United States Lines ran an advertising campaign to emphasize that some 5,000,000 Americans will depend on foreign trade for their post-war living and that we shall need an active merchant fleet capable of competing with those of other nations. Harris, in a letter to a selected list of American businessmen, closed with: "One of our primary aims, as you will see, is to preserve private enterprise."

Siegerist replied:

My definition \* \* \* is that private enterprise consists of a business activity that receives sufficient remuneration from its customers to pay all of its employees, all of its taxes, keep abreast of progress, and also have something left over for the stockholders, without subsidies of any kind. I cannot accept a definition of private enterprise that includes a subsidy from government. This is simply a way of obtaining involuntary payment from the entire population.

To which, Harris answered:

Your definition of private enterprise squares entirely with mine. Yet I cannot entirely agree with you in your assertion that a company like ours, which receives what you term a "subsidy," cannot be listed as a private enterprise. Let me explain briefly why our company is still a private enterprise, although it does receive government aid.

When a ship is being constructed, and in order to put the owner on a parity with foreign competitors, the government ascertains what the ship, built in an American yard, can be constructed for abroad. Then the government gives directly to the shipbuilder the difference between the foreign cost and the domestic cost. That subsidy actually goes into the pockets of American workmen in the form of the higher wages they receive, as against the low wages paid abroad.

In the operation of ships, the government is supposed to equalize the cost so that in competing with foreign companies a line like our own will not be at a disadvantage. In other words, if an American seaman receives \$100 a month and a British

seaman received only \$25 a month, the government is expected to reimburse the company \$75 so that we may compete on a parity. Hence, all of the government aid goes to labor and not to the shipping company which, in every respect, is a private organization.

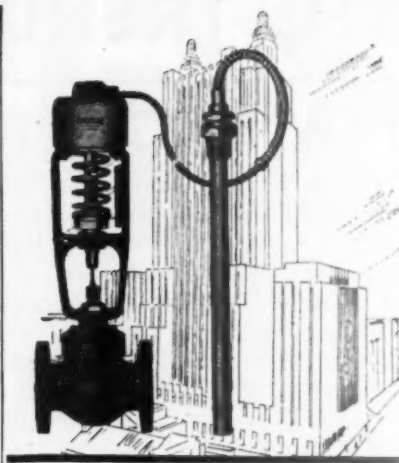
Harris pointed out that the tariff is sometimes used as a means of achieving parity between domestic and foreign production, but Siegerist contended:

A tariff is a charge on an import. \* \* \* It is really an item that can be justified because it is collected from those benefiting by the importation. In other words, only the users of imported Scotch whisky pay the tariff. On the other hand, a subsidy \* \* \* is "a government grant to assist a private enterprise deemed advantageous to the public." \* \* \* I would not feel so strongly against a subsidy of any kind, if, in each instance, the law would be so drawn that the subsidy would be obtained from the interests involved.

Although opposed to the artificial support of any activity, Siegerist suggested that one way to place the cost of higher operating costs on the firms and individuals using transoceanic shipping might be to impose a landing charge on goods brought to American shores in foreign ships. Then, operators of other countries could employ crews at whatever wage rates they desired but the cost of delivering the goods, including the landing charge, would be equal to that charged by the American companies. Another alternative proposed by Siegerist would call for a universal base for compensating seamen, to be written into the peace treaty.

Harris agreed that if American lines could employ American seamen as cheaply as operators of foreign lines can hire men there would be no necessity for an operating subsidy, but this is not possible under existing law.

Space does not permit review here of all the points developed in this interesting exchange on a timely subject. But one phase that neither brought out seems to me to be important. That is the necessity of a strong merchant marine as auxiliary to the armed forces. Perhaps if the Army and the Navy were to determine the tonnage and types of ships they deem essential to maintain in being at all times, and the extra costs were charged to defense—rather than called a shipping subsidy—we might reduce the area of controversy over the place of American shipping in international commerce.



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W.C.

# THE TREND

## NEW BUDGETS FOR U. S. WORLD TRADE

Use of the quantitative approach to American world trade and investment problems has come a long way in the past year or so, beginning with the Commerce Dept.'s historical analysis under the title of "The United States in the World Economy," advancing with Commerce's "Foreign Trade After the War," continuing with the Foreign Policy Assn.'s "U. S. Foreign Trade and World Economy," and reaching a new high-water mark in the National Planning Assn.'s "America's New Opportunities in World Trade," published this week (page 114).

• **The starting point** of all the analyses is our position as the world's single great creditor nation and as world industrial leader, and the premise that we can sell to the world as much, but only as much, as we provide it with purchasing power with which to buy. The "shortage of dollars" arising from the stoppage of our foreign lending and our high-tariff restraints on imports runs as the theme throughout—explaining much of the international economic crisis of the early thirties, the gold movement to this country in the later thirties, and the continued low level of American exports.

Necessarily, then, the trade analysis begins with the supply of dollars—with American imports providing the chief item in the supply. The crucial fact is that, historically, our import volume has been very closely related to the level of our own industrial production—since our imports are mostly industrial raw materials. From this relationship one can estimate how much we might well import under conditions of full employment production. Assume any given price level, and this import volume becomes a dollar total. N.P.A. has refined Commerce's original work by taking into account the development of substitute materials on the one hand, and deficiencies in basic resources on the other.

To the import total must be added or subtracted "service" items—whatever dollars we might supply, as through travel abroad, or might take back, as in interest on previous loans. And finally, we must figure in whatever dollars we might supply through long-term investments, or through purchases of gold.

N.P.A. finally figures an export possibility of \$7 billion—\$5 billion paid for by imports, \$1 billion by net purchase of services or gold, and \$1 billion by long-term loans (figured in 1941 prices, at full employment in 1950).

• **These estimates assume** continuance of our present policies on trade and investment. But N.P.A. regards its "projected foreign trade budget" as inadequate. On the one hand, the world's needs for capital for reconstruction and development are enormous, and might be figured at \$7 billion or \$8 billion a year for some time. On the other hand, N.P.A. feels that the American economy

requires still larger exports, because it is maladjusted in two ways: (1) We have excess capacity in the "heavy" industries—metals, vehicles, machinery—and (2) we have excess savings for domestic investment. Until both difficulties can be gradually straightened out, we cannot attain full employment, except through larger-scale capital lending abroad, which would use up our excess savings, and would buy up our excess heavy goods.

Hence N.P.A. raises its goal for long-term American investments abroad from \$1 billion to \$3 billion. To reach this goal, it recommends extension of government authority to underwrite foreign loans—as through the Export-Import Bank, say—and acceptance of lower interest rates than those of 20 years ago (since domestic rates are now down sharply).

• **"More fundamentally, however,"** says the report, "the security of foreign investment depends upon measures to increase our imports." In the long run, our loans must be repaid—which means that we must, at some later date, buy more than we sell. It is suggested that towards that end we must make a beginning now, by lowering some of our tariffs, by stockpiling some strategic raw material imports, and by conserving declining natural resources. N.P.A. estimates that this start would raise our imports by \$1 billion, which, together with the added \$2 billion of investment, would lift our export potential to \$10 billion. That is the trade budget it recommends. And the reason for choosing a \$2 billion figure for increase in investment is that the gradual growth of the American economy might require just about enough more imports each year to pay for the added interest on \$3-billion-a-year loans.

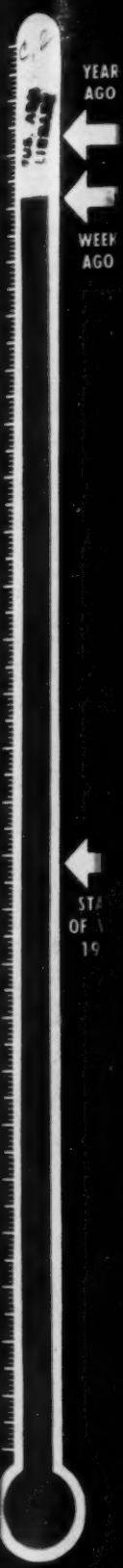
• **Comment, disagreement, speculation** can arise at many points along the course of such a tightly woven argument of historical analysis, projection, and recommendation. The usual reminder is in order—that N.P.A.'s budgets are projections based on assumptions, and not predictions. Also, the statistical conclusions are in many ways new and surprising; N.P.A. would be the first to admit they are still subject to many variables. Further, some may disagree with N.P.A.'s diagnosis of our domestic imbalances in regard to savings and the heavy industries. And so on.

A more general conclusion is that, however much exports may be our concern, the foreign trade analysis begins and ends with imports. We cannot, in the first place, even think about larger exports, in the face of the world trade barriers erected in the thirties, much less plan an expansion built on capital loans. And necessarily, it is up to us to take the lead in reducing those barriers—in expanding imports.

*The Editors of Business Week*

*Business Week • December 2, 1944*

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